

NEUROLOGY SECTION: COURSE DESCRIPTIONS AND FACILITY REQUIREMENTS

The following are two-day courses provided by the Neurology Section of APTA:

NEUROLOGIC PRACTICE ESSENTIALS:

I. Advanced Neurological Practice: The Impact of Physical Therapy Interventions on Neuroplasticity

Course Content Coordinators: Marghuretta Bland, PT, DPT, NCS, MSCI ; George Hornby, PT, PhD; Jennifer Moore, PT, DHS, NCS

Course Developers: Deborah Backus, PT, PhD; Marghuretta Bland, PT, DPT, NCS, MSCI; Lara Boyd, PT, PhD; Nancy Byl, PT, PhD, FAPTA; Beth Fisher, PT, PhD; George Hornby, PT, PhD; Robbin Howard, PT, DPT, NCS; Teresa Jacobson Kimbereley, PT, PhD; Deborah Sue Larsen, PT; James Lynskey, PT, PhD; Jennifer Moore, PT, DHS, NCS; Mike T. Studer, PT, NCS, CEEAA

Course Description: As research in neuroscience and neurorehabilitation evolves, clinicians are challenged to understand the latest advancements and how to apply them to clinical practice. This 2-day course will facilitate a clinical understanding of the principles of neuroplasticity and their application to the assessment and treatment of patients with neurological impairments secondary to trauma and neurodegenerative disorders. Strategies to implement interventions characterized by these principles will be discussed through presentations, patient case studies and small group discussions. Clinicians will be asked to complete one assigned reading and prepare a case for small group discussions about how neuroplasticity research is relevant to and feasible in *their* clinical practice.

Course Objectives: Upon completion of this course, participants will be able to

- Critically examine current concepts in neuroplasticity and discuss their clinical relevance related to individuals with neurological impairments secondary to trauma and neurodegenerative disorders;
- Structure and modify clinical interventions to maximize their patients' potential for neuroplasticity across the continuum of care;
- Identify and characterize variables that can influence neuroplasticity and rehabilitation management;
- Identify clinical barriers to the delivery of evidence based practice and suggest potential solutions;
- Discuss the application of assessments and interventions that have potential to facilitate neuroplasticity and maximize patient outcomes through clinical cases

Who Can Take This Course: Licensed Physical and Occupational Therapists; Licensed Physical Therapy Assistants and Certified Occupational Therapy Assistants

EXPANDING NEUROLOGIC EXPERTISE:

II. Expanding Neurologic Expertise: Introduction to Vestibular Rehabilitation

Course Content Coordinator: Janet Callahan PT, MS, NCS; Jennifer Nash, PT, DPT, NCS

Course Developers: Susan L Whitney, PT, DPT, PhD, NCS, FAPTA, Elizabeth Grace Georgelos, PT, MS, NCS ; Brady Whetten, PT, DPT, GCS ; Carrie Hoppes, PT , DPT, OCS; Connie Weglarz, PT, DPT, NCS; Eric Anson, PT, MPT; Janet Callahan PT, MS, NCS; Jennifer Nash, PT, DPT, NCS; Kristin DeMars, PT, DPT, NCS; Lisa Brown, PT, DPT, NCS; Melissa Bloom, PT, DPT, NCS; Paula Goga Eppenstein, PT, MS; Rebecca English, PT, MSR, DPT; Sara Oxborough, MPT; Tara Denham, PT, MS

Course Description: Vestibular Rehabilitation has become an integral part of physical therapy practice across the continuum of care. However, many physical therapists have not had the opportunity to engage in this area of specialty practice. This course is a comprehensive offering designed to meet the needs of individuals wishing to enhance their understanding of vestibular rehabilitation in order to effectively manage a range of patients with vestibular disorders and to identify individuals requiring referral for specialty support. The course will include an in-depth review of the anatomy and physiology of the vestibular and oculomotor systems with application to the differential diagnosis of disorders of the vestibular system including BPPV, unilateral and bilateral vestibular disorders, central vestibular disorders and dizziness of a non-vestibular origin. Additionally, the evaluation and management of postural control deficits associated with vestibular dysfunction will be addressed. Laboratory sessions will be utilized to enhance the development of psychomotor skills in evaluation and management techniques associated with vestibular rehabilitation.

Course Objectives: Upon completion of this course, participants will:

- Apply knowledge of vestibular/oculomotor anatomy and physiology to the differential diagnosis of vestibular disorders.
- Utilize information obtained from a patient history to develop one or more working hypotheses for vestibular dysfunction.
- Identify/Perform tests and measures used in the examination of a patient with vestibular pathology including examination of the vestibular and oculomotor systems and positional provocation tests.
- Establish an appropriate plan of care and prognosticate outcomes for individuals with vestibular dysfunction.
- Interpret examination findings associated with patient cases.
- Recognize examination findings that are not consistent with disorders of the vestibular system and warrant physician/specialist/medical referral.

Who Can Take This Course: Licensed Physical and Occupational Therapists

III. Expanding Neurologic Expertise: Advanced Practice in Vestibular Physical Therapy

Course Content Coordinator: Susan L Whitney, PT, DPT, PhD, NCS, FAPTA

Course Developers: Janet Callahan PT, MS, NCS; Rene' D Crumley, PT, DPT, NCS; Cheryl Ford-Smith, PT, DPT, MS, NCS; Michael Furtado, PT, DPT, NCS, CBIS; Colin R Grove, PT, MS, NCS; Janet O Helminski, PT, PhD; Janene M Holmberg, DPT, NCS; Kristen M Johnson, PT, MS, NCS; Karen H Lambert MPT, NCS; Laura O Morris, PT, NCS; Anne Mucha, PT, MS, NCS; Michael C Schubert, PT, PhD; Susan L. Whitney, PT, DPT, PhD, NCS, ATC, FAPTA

Course Description: Developed by a team of clinicians with expertise in vestibular rehabilitation, this course is designed to expand knowledge of complex vestibular pathologies, improve clinical reasoning in differential diagnosis and present innovative intervention strategies. To facilitate learning, the course uses interactive case based presentations and video eye movement analyses on complex vestibular diagnoses including migraine, anxiety, atypical BPPV, central vestibular dysfunction, and concussion. Specific attention to recent advances in examination and intervention strategies are presented.

Course Objectives: Upon completion of this course, participants will:

- Perform history taking/interpretation skills in persons with a wide variety of vestibular disorders.
- Describe vestibular diagnostic and functional testing
- Recommend testing when appropriate and utilize information for clinical management.
- List positive and negative effects of pharmacological interventions and integrate them into evaluation and treatment.
- Describe accurate differential diagnosis, integrating the use of eye motion analysis, tests of postural control, positional tests, and key aspects of the patient's history.
- Utilize tests and measures for managing those with vestibular disorders.
- Describe available literature to enhance vestibular physical therapy practice.
- Identify psychogenic factors in the dizzy patient and modify clinical management accordingly.
- Apply advanced clinical skills and knowledge to more effectively treat migraine related dizziness, anxiety, complex and difficult forms of benign paroxysmal positional vertigo, peripheral and central vestibular disorders, and concussion.
- Describe new technological advances in vestibular testing and intervention.

Who Can Take This Course: Licensed Physical and Occupational Therapists

IV. Expanding Neurologic Expertise: Advancing Clinical Practice in Acute Stroke Rehabilitation

Course Content Coordinator: Anna Lisa de Joya, PT, DSc, NCS and Irene Ward, PT, DPT, NCS

Course Developers: Heather Dillon Anderson, PT, DPT, NCS; Anna Lisa de Joya, PT, DSc, NCS; Megan Eikenberry, PT, DPT, NCS; Karen McCain, PT, DPT, NCS; Diane Nichols, PT, NCS; Brian Olkowski, PT, DPT; Kamille Andino Sprenkle, PT, DPT, CCI; Irene Ward, PT, DPT, NCS; Maureen Whitford, PT, PhD, MS, MHS, NCS; Rei Yoshida, PT, DPT

Course Description: With the recent developments in the medical management of patients post-stroke and advances in neuroscience research, physical therapists working with patients in the acute phase of stroke rehabilitation must understand and manage them using a broader and deeper evidence-based approach.

The focus of this 2-day course is to present evidence from which physical therapists can develop a clinical framework to effectively manage patients in the acute phase of stroke recovery. The current health care climate within the acute care and acute inpatient rehabilitation settings will be reviewed and discussed. Topics will include the role of the physical therapist, pathophysiology of stroke, principles of medical and surgical management, tenets of neuroplasticity and motor learning, and outcomes measurement as they apply to best physical therapy practice. In addition, treatment approaches related to impairments and activity limitations post-stroke will be addressed. The course format will include lecture-based presentation and active dialogue through the use of case studies and group discussions.

Course Objectives: Upon completion of this course, participants will:

- Understand the current health care climate within the acute care and acute inpatient rehabilitation settings as it relates to access and delivery of physical therapy services.
- Describe the role of the physical therapist in the management of patients with acute stroke in the intensive care unit, specialized stroke unit, and acute inpatient rehabilitation.
- Describe the pathophysiologic changes in the brain based on the type of stroke and lesion location, as well as the correlating clinical presentation.
- Understand the principles of the medical and surgical management of patients with acute stroke.
- Critically appraise and integrate the current evidence on best physical therapy practice based on principles of neuroplasticity and motor learning.
- Analyze and apply recommended standardized outcome measures in acute stroke rehabilitation.
- Develop and apply a clinical decision making framework implementing the domains of the ICF model based on presented information.

Who Can Take This Course: Licensed Physical and Occupational Therapists; Licensed Physical Therapy Assistants and Certified Occupational Therapy Assistants

V. Comprehensive Concussion Management: "Need to Know" Information for Physical Therapists

Course Content Coordinator: Karen McCulloch, PhD, PT, NCS

Course Developers: Karen Heide Lambert, PT, MPT, NCS; Anne Mucha PT, DPT, MS, NCS; James M. Elliott, PT, PhD; Susy Halloran, DPT; Airelle Giordano, PT, DPT, OCS, SCS; Kim Gottshall PhD, PT, ATC; Nicole Miranda, PT, DPT; Michael R. Borich, DPT, PhD; Susan Linder, PT, DPT, NCS.

Course Description: Concussion is a common and potentially disabling condition that affects people of all ages as a result of trauma sustained in sport, motor vehicle crashes, military service, work and recreational accidents. The multifaceted nature of concussion requires a comprehensive view of physical, cognitive and psychological functions. Physical therapists play a key role in facilitating recovery after concussion and identifying concussion in patients referred for other reasons; however necessary expertise spans multiple areas including sports medicine, orthopedics, neurology and vestibular function. Intervention for individuals who do not recover quickly after concussion has not been well described in the literature; therefore, best practice is not clear.

The purpose of this course is to focus on "need to know" information for PTs to identify concussion, and to examine and intervene with adolescents and adults with concussion who do not recover with rest alone. Embedded in the described approach is the need to identify the primary triggers of ongoing symptoms and recognize the need for referrals to maximize and expedite recovery.

Current information related to definitions, diagnosis, imaging, pathophysiology, symptom profiles and prognosis form a foundation for the course. Examination and intervention approaches that consider headache, cervical spine, visual and vestibular challenges, as well as exertional, cognitive, psychological and behavioral issues will be shared in an interactive format that includes case examples and selected lab activities. The role, responsibility, and contributions of the physical therapist to the interdisciplinary team in decisions regarding return to work, play or school will be discussed, taking into account unique legislative and practical concerns.

Course Objectives: Upon completion of this course, participants will:

- Describe current practice in concussion diagnosis and discuss related neuroimaging and other diagnostic testing.
- Summarize the pathophysiology of concussion and implications for clinical management.
- Describe risk factors that contribute to prognosis and outcome following concussion.
- Describe common symptom profiles post-concussion and characteristics that indicate likely impairment categories such as cervical involvement, visual disturbances, and vestibular dysfunction in order to streamline assessment.
- Demonstrate select methods for assessment of identified impairments within categories of cervical, oculomotor, and vestibular dysfunction.
- Summarize treatment strategies to address cervical spine, oculomotor/vestibular pathology, headache, exertional and psychogenic issues post-concussion.
- Highlight characteristics of guidelines to progressively return to activity as reflected by published guidelines and current best practice.
- Identify means to increase the interdisciplinary and holistic nature of intervention for individuals with concussion who have persistent symptoms.

Who Can Take This Course: Licensed Physical Therapists

VI. A Comprehensive Approach to Evidence-Based Rehabilitation of Patients with Parkinson Disease across the Continuum of Disability

Course Coordinators: T. Ellis, Boston University, College of Health & Rehabilitation Sciences: Sargent College in the Department of Physical Therapy & Athletic Training. Boston, MA; L.E. Dibble, University of Utah Department of Physical Therapy, Salt Lake City, UT
Course Developers: T. Ellis, Boston University, College of Health & Rehabilitation Sciences: Sargent College in the Department of Physical Therapy & Athletic Training. Boston, MA; L.E. Dibble, University of Utah, Department of Physical Therapy, Salt Lake City, UT; S. Combs-Miller, Krannert School of Physical Therapy, University of Indianapolis, Indianapolis, IN; R. Duncan, Program in Physical Therapy, Washington University School of Medicine, Washington University in St Louis, St Louis, MO; B. Fisher, Department of Biokinesiology, University of Southern California, Los Angeles, CA. J. Hoder, Doctor of Physical Therapy Division, Duke University School of Medicine, Durham, NC. A. Nieuwboer, Department of Rehabilitation Sciences, Katholieke University Leuven, Leuven, Belgium

Course Description: Parkinson disease (PD) is considered a chronic health condition that must be successfully managed over a period of many years. Despite advances in medical management, patients with PD experience a decline in quality of life and physical function over the course of the disease. There is a growing body of evidence revealing the benefits of physical activity, exercise, and rehabilitation in improving participation, decreasing activity limitations, and remediating deficits in body structure and function in people with PD. This course will begin with a review of the underlying neuropathology of PD followed by discussions related to differential diagnosis. An evidence-based approach to the physical therapy examination, diagnosis, prognosis and intervention will be described. This will include, but not be limited to coverage of how varied motor phenotypes (e.g., Freezing of Gait) and PD-related cognitive dysfunction may impact rehabilitation. Responsiveness of commonly used outcome measures will be discussed. The most current research supporting potential neuroprotection and neurorestorative effects of exercise interventions will be included. Specific elements of treatment will be highlighted – including overground walking and treadmill training, cardiovascular fitness training, strengthening, balance training, and external cueing. Finally, community-based exercise programs supported by evidence will be discussed.

Who Can Take This Course: Licensed Physical and Occupational Therapists

Minimum facility requirements for hosting any of these courses:

- Courses typically run on Saturdays (8am-5pm) and Sundays (8am to 5pm). This is negotiable.
- Prior experience hosting courses including developed local marketing strategy and list of marketing contacts.
- For Section-sponsored course, location within reasonable distance of a major airport or railway is recommended
- Readily accessible ground transportation options
- At least 3 hotels within vicinity of facility if in a major city, preferably with one that is within walking distance of the facility
- Readily accessible parking for the facility, preferably at no charge
- Auditorium or classroom style seating to seat up to the maximum participants determined. Provide adjacent or nearby space for lab (if lab sessions are included within the course). Provide adjacent or nearby breakout classrooms (if concurrent sessions are included within the course).
- Onsite wireless internet access and multiple outlets for participants to use their laptops in the classroom at no additional charge to the Neurology Section or participants.
- Accessibility for participants with disability.
- One point person for all advance arrangements and correspondence with Section
- One onsite administrator responsible for management of the onsite course logistics which include, but are not limited to, catering, registration (at least one table for registration outside the classroom), CEU/attendance verification, rooms, and audiovisual sets.
- Course site set up and functional (e.g. electronic equipment tested) and registration table ready to welcome participants no less than 1 hour before course is scheduled to begin.
- Order and receive catering needs of continental breakfast with beverages and morning and afternoon snacks that include healthy options at the break for all participants and course faculty, with sensitivity to dietary restrictions, at rate negotiated with the Section.

Additional specific facility requirements per course:

NOTE: Certain instructors may have specific or unique requirements related to the course which may not be identified here. The Section will require instructors to submit specifications in writing that will be shared with the host facility no less than 60 days prior to course commencement.

Course I: Advanced Neurological Practice: The Impact of Physical Therapy Interventions on Neuroplasticity

Minimum of 2 speakers Required

Single large auditorium/classroom space accommodating at least 40 participants, with audiovisuals (LCD projector, screen, microphone as space dictates; speakers are responsible for bringing laptop computers).

Course II: Expanding Neurologic Expertise: Introduction to Vestibular Rehabilitation

Minimum of 2 speakers Required

Single large classroom space accommodating up to 60 participants, with audiovisuals (LCD projector, screen, microphone as space dictates; speakers are responsible for bringing laptop computers). Tables supporting body weight are required for lab sessions. Ideally, we would like to have one table per pair (2 people). The classroom must be a very dark room such that eye movies may be shown without too much sunlight.

Course III: Expanding Neurologic Expertise: Advanced Practice in Vestibular Physical Therapy

Minimum of 2 Speakers Required

Single large classroom space accommodating up to 60 participants, with audiovisuals (LCD projector, screen, an audio jack for the movies from the computer, microphone as space dictates; speakers are responsible for bringing laptop computers). Tables that support body weight are required for the course. Ideally, we would like to have one table per pair (2 people). The classroom must be a very dark room such that eye movies may be shown without too much sunlight.

Course IV: Expanding Neurologic Expertise: Advancing Clinical Practice in Acute Stroke Rehabilitation

Minimum of 2 speakers Required

Single large auditorium/classroom space accommodating at least 40 participants, with audiovisuals (LCD projector, screen, microphone as space dictates; speakers are responsible for bringing laptop computers).

Course V: Comprehensive Concussion Management: "Need to Know" Information for Physical Therapists: An APTA Neurology Section Sponsored Course

Minimum of 2 Speakers Required

Single large classroom space accommodating at least 60 participants, with audiovisuals (LCD projector, screen, microphone as space dictates; speakers are responsible for bringing laptop computers. *** A tentative request includes an audio jack for the movies from the computer, but the developers are still trying to determine if this will be necessary*). Tables that support body weight are required for the course. Ideally, we would like to have one table per pair (2 people). The classroom must be a very dark room such that eye movies may be shown without too much sunlight.

Course VI: A Comprehensive Approach to Evidence-Based Rehabilitation of Patients with Parkinson Disease across the Continuum of Disability

Minimum of 2 speakers Required

Single large auditorium/classroom space accommodating at least 40 participants, with audiovisuals (LCD projector, screen, microphone as space dictates (lavaliere microphone preferred) ; speakers are responsible for bringing laptop computers). The capability of having sound for playing video clips from the computer is necessary (an audio jack for the movies from the computer or speakers to connect to the computer). The classroom must be have the ability to be made dark enough such that movies of examination and treatment may be shown without too much sunlight.

This document is subject to change.

Attachment B

TIMELINE FOR COURSE DELIVERY

Upon receipt of signed contract:

- Host: Identifies a local correspondence contact for the site who will be the primary coordinator of all pre-course logistics between the Section and the site. This correspondence contact:
 - Makes arrangements with a nearby hotel for the participants' lodging, obtaining the following information:
 - Hotel addresses and phone number (800 number if possible)
 - Group rates/ discounts for local hotel(s)
 - Shuttle to and from course (usually 7:30 am and 5:00 pm*)
 - **Please note: If possible, it is preferable to find a hotel within walking distance of the course.*
 - Shuttle to and from the closest airport
 - Driving directions to the hotel(s) and course site. Please include distance and travel times between the airport and hotel; hotel and facility; and the facility and airport.
 - Parking arrangements, including if there are fees for parking during the course.
 - Information on dining facilities there or nearby.
 - Layout of where the course will be located, specifying building and room numbers.
 - Clear, local maps showing the airport, railways, and your facility.
 - Emergency phone numbers at the facility
 - Provides a listing of local contacts and suggestions for local marketing efforts, including existing address lists, email contacts, alumni lists, local PT listserv information, etc.
 - Coordinates posting of all necessary information about the course on the facility website, linking back to the Neurology Section website as necessary
 - Identifies (or serves as) on-site coordinator for the course when it occurs
 - Send above information to the Neurology Section at neuro@apta.org.
 - Licensed courses only: If a Licensed Course requires CEUs beyond that which is already approved or have not expired, the Host Facility assumes both CEU approval and all related fees.
- Neurology Section of APTA Provides:
 - Contracts with speakers
 - CEU Applications: The Neurology Section is responsible for CEUs for Section Sponsored courses, assigning CEUs as prior approved and non-expired. If a Licensed Course requires CEUs beyond that which is already approved or have not expired, the Host Facility assumes both CEU approval and all related fees.
 - Brochure produced and provided electronically to Host
 - Sponsor prospects identified by host and Section for potential solicitation
- Host Facility and Section agreed upon and Section solicits sponsors
- Marketing of course begins
 - Place brochure on website of Section and Host Facility
 - Include brochure and notice via eblasts and listservs. Suggestions include:
 - Section members
 - Local hospitals, rehabilitation centers, HH agencies, skilled nursing facilities, other universities, etc
 - Alumni or contacts from previous courses
 - State or district level contacts
 - Brochures printed and placed in locations as deemed appropriate
- Registrations taken and information provided to registrants on a rolling basis
- 60-day check in with host facility
 - Update on registrations
 - Instructor specifications provided, if necessary
 - Host provides contact information to Section of administrator who will be on-site during the full days of the course and who will arrange for all on-site course needs (catering, a/v, receipt of registration supplies as provided in shipment by the Neurology Section, etc.)
- 30-day check in
 - Update on marketing efforts
 - Speaker check-in
 - a/v

- other special needs to be arranged
 - Administrator check-in:
 - Meeting space confirmed
 - Plan for catering needs for breakfast and break snacks. Identify options for lunch.
 - update on registration
 - a/v needs
 - arrange for security as needed
 - arrange for parking/shuttle as needed
 - plan for posting directional signs to course location as needed
 - confirm address/contact for receipt of registration materials to be shipped by Section
- 15 day check in
 - Course cancellation determination
 - Instructors notified of decisions
 - Registrants notified of decisions and last minute follow-up/details (eg, what to expect upon arrival/where to go, etc.)
 - Honorariums created & mailed to instructors or included in shipment to host <after the course occurs>
- 1-week
 - Registration supplies printed/shipped (Section hosted only), which includes name badges, CEU certificates, and sign-in/out sheets
 - On-site administrator finalizes catering needs for breakfast and break snacks, confirms room set-up and a/v as outlined in course requirements in the preceding pages
 - On-site administrator arranges for transportation for speakers to/from course location.
 - Speaker, on-site administrator and Section representative cell phone numbers shared for emergency contacts
 - On site coordinator communicates logistics to speakers (questions re: a/v, room set-up, logistics, ground transport, etc)
- Post-course
 - Host provides return shipment of materials to the Section within 2 weeks of course completion.
 - Honorariums disseminated by Section
 - Thank you letters sent
 - Course evaluations summarized and shared with hosting site, speakers, regional program director and Director of Education.
 - Income/expense reports processed
 - Payments made
 - SWOT analysis with host and instructors

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