DESCRIPTION
This intermediate to advanced level course focused on “Brain to Hand: Progressive approaches to pain, impairment, and function” and offers participants the opportunity to explore the following topics:
• Hand, brain, and surgery
• Exploiting neuroplasticity to enhance prehensile skill
• Cadaveric dissection, wrist ligaments, and nerve injury/transfer
• The brain and the wrist: evidence for practice
• Assessing the wrist: what about proprioception?
• Mirror therapy and graded motor imagery: training the brain
• Proprioceptive reeducation of non-surgical and post-surgical wrist instability
• The use of tape to enhance proprioception in the upper extremity
• Pain is in the brain - the neurophysiology of understanding and treating pain based on the mechanisms of pain
• Coping with chronic pain
• Rehabilitative strategies for treating persisting pain including complex regional pain syndrome
• Strengthening the efficacy of neuro-rehabilitation intervention
• The hand and brain connection

CONTENT FOCUS
Domain of OT: Client Factors and Performance Skills
Occupational Therapy Process: Evaluation, Intervention, and Outcomes

FACULTY
Jeanine A. Beasley, EdD, OTR, CHT, FAOTA
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Rebecca von der Heyde, PhD, OTR/L, CHT
Greg P. Watchmaker, MD
Stefan V. Zachary, DO, MS

LEARNING OUTCOMES  At the end of the course, participants will be able to:
• Describe the features of neuroplasticity and motor learning that form the basis of innovative intervention strategies
• Describe joint mechanoreceptors and proprioceptive reflexes and pathways
• Identify the basis for therapeutic applications as it relates to proprioceptive sense at the wrist
• Describe mirror therapy and graded motor imagery for retraining the brain
• Explain neuroplasticity and the changes that occur in the brain
• Identify the information presented on rewiring the brain into clinical practice
• Describe the specifics of proprioceptive retraining pertaining to different types of wrist instability
• Select and progress patients through an optimal rehabilitation program as it relates to their type of instability
• Explain the recommended modalities and exercises for wrist instability
• Explain the current research supporting the use of tape in a hand and upper extremity practice
• Identify various uses of tape to improve proprioception for the wrist, elbow, shoulder, and scapula
• Describe the definition and mechanisms of the phenomenon of pain
• Compare the process of transduction, transmission, modulation, perception, and reaction of pain
• Contrast the pharmacological, physical rehabilitation, and psychological treatment approaches used in individuals with pain
• Identify cognitive behavioral strategies for coping with pain
• Explain decatastrophizing strategies to assist patients in coping with pain
• Compare various theoretical models for chronic pain
• Describe the central mechanisms involved with persistent pain
• Explain the biopsychosocial approach to persistent pain
• Identify treatment strategies in designing a clinical program
• Compare intervention studies that have demonstrated sufficient efficacy
• Identify prior and present obstacles to the achievement of significant outcomes and translation into clinical practice

COURSE # | TARGET AUDIENCE | CEUS | PRICE | FORMAT | LEVEL
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9391 | OTs, OTAs, PTs, PTAs, and certified hand therapists | 1.05 (10.5 clock hours) | $475 | Flash Drive or DVD | Intermediate to Advanced