



Professional Enrichment Course

University of Pittsburgh School of Medicine

Office of Medical Education

PEC Registrar – Denise Downs d downs@pitt.edu 412-648-8749

Rehabilitation Concepts in Muscle, Joint, Brain, & Nerve Physiology

Enrollment Period:	Spring 2023
Course Dates:	1/6, 2/6, 2/16, 2/27 (1-5PM)
Student Max:	10
Class Year:	MS1, MS2
Course Director:	Brad Dicianno, MD Email: dicibe@upmc.edu
Course Administrator:	Kristie Marie Westerlund PM&R Senior Department Manager Kaufmann Medical Building Pittsburgh, PA 15213 Phone: 412-864-3721
Location:	See below
Registration:	Via Amp Up – You will receive an email with enrollment info
Course Description:	<p>This four-session professional enrichment course introduces students to rehabilitation concepts in the physiology of muscle, joints, brain and nerves.</p> <p>Sessions are held at various locations for hands-on experience and observation. The goal of this program is to explore the relationship among anatomy, physiology, and human motion. This course highlights ways rehabilitative efforts and technology can be used to diagnose and treat disorders of the neuromuscular system. Through both didactic and hands-on exposure at these sites, this series covers topics including:</p> <ul style="list-style-type: none">• The use of musculoskeletal ultrasound to identify normal and pathological structures of joints• The pathophysiology and treatment of traumatic brain injury and concussion.• Anatomy of joints and techniques used to guide injections• The use of Nerve Conduction Studies and Electromyography as a way to diagnose neuromuscular diseases.• Basic pathology and effects of spinal cord injury, including management of spasticity.

Objectives:	<ul style="list-style-type: none"> • To understand the physiology of traumatic brain injury • To understand the anatomy of the major joints • To become familiar with Nerve Conduction Studies and Electromyography and understand their role as an extension of the physical examination. • To review nerve and muscle physiology, including muscle recruitment as demonstrated by EMG • To understand multimodal management of upper motor neuron spasticity including botulinum toxin injections and baclofen pump management • To understand the basic pathology of a spinal cord injury and related functional deficits based on level of injury
Pre-Requisites:	None
Requirements:	Participate in all 4 course sessions

Faculty:

Dr. Gary Galang
 Dr. Amanda Harrington
 Dr. Kentaro Onishi
 Dr. Suehun Ho
 Dr. Jennifer Shen
 Dr. Jessica Berry

Jan 6 (1-5PM)

Spinal Cord Injury, Spasticity, Baclofen Pumps, and Botox Injections
 Location: Meet in Mercy Inpatient Spinal Cord Injury Unit Resource Room 7015
 Instructor: Drs. Amanda Harrington and Jessica Berry

Feb 6 (1-5PM)

Musculoskeletal Exam and Ultrasound
 Location: Meet in Kaufmann Medical Building Suite 910 Conference Room
 Instructors: Drs. Kentaro Onishi and Suehun Ho

Feb 16 (1-5 PM)

Traumatic Brain Injury
 Location: Meet at inpatient Brain Injury Rehab Unit, Mercy Hospital, 6th Floor
 Instructor: Dr. Gary Galang

February 27 (1-5PM)

Electromyography and Nerve Conduction
 Location: Meet at inpatient Stroke Rehab Unit, Mercy Hospital, 6th Floor, Dining Room
 Instructor: Dr. Jennifer Shen

Special Instructions:

Professional dress is requested for the spasticity and TBI groups. Please wear scrubs for the other two sessions. You will receive an outlook invitation from Isabel Romanowski for each of the four sessions. Please take it upon yourself to put these sessions and their locations on your own calendar as you will not receive reminders about the events.