

Brain Structure and Function: Application to Sensory Integration and Processing

General Topic	Content	Application
<p style="text-align: center;">Week 1</p> <p>Quick review of sensory structures, pathways, function</p> <p>Neural connectivity</p> <p>Neuroplasticity</p>	<ul style="list-style-type: none"> • Course overview; • Structured reflection regarding current comfort with and knowledge of neuroscience; • Neural structure and function; • Neural networks; • Neural supports; • Defining and understanding neuroplasticity processes; • Case considerations. 	<ul style="list-style-type: none"> • Readings; • Brain map with basic functions; • Construct neurons, neural networks; • Case considerations; • Information exchange
<p style="text-align: center;">Week 2</p> <p>Sensory Modulation</p>	<ul style="list-style-type: none"> • Defining modulation, behaviorally and neurally; • Identifying and understanding brain regions and functions associated with modulation; • Application to occupation, participation, health, and developmental differences. 	<ul style="list-style-type: none"> • Readings; • Examining modulation across sensory systems; • Case considerations; • Information exchange
<p style="text-align: center;">Week 3</p> <p>Sensory perception and discrimination</p>	<ul style="list-style-type: none"> • Identifying and understanding brain regions and functions associated with sensory perception and discrimination. • Grounding this information in occupation, participation, health, and developmental differences. 	<ul style="list-style-type: none"> • Readings; • Links between modulation and perception; • Case considerations; • Information exchange
<p style="text-align: center;">Week 4</p> <p>Motor structures, pathways, functions</p> <p>Posture and Praxis</p>	<ul style="list-style-type: none"> • Identifying and understanding brain regions and pathways associated with movement; • Defining praxis; • Understanding structures associated with praxis; • Grounding this information in occupation, participation, health, and developmental differences. 	<ul style="list-style-type: none"> • Readings; • Motor pathways and structures map; • Linking brain structures associated with praxis; • Case considerations; • Information exchange