

# **IKN Approach Level 1 Online**

## **Pre-Course**

- Research articles
- Recommended books
- Receive the powerpoint

#### Week 1

- Applied neurology & musculoskeletal rehab Integration overview
- Dynamic Systems Theory Integration with rehabilitation
- Neurology of undisturbed movement vs real-world movement
- Neurology of pain through an IKN lens
- Neurology of load and its influence on movement control

#### Week 2

- Understanding the influence of gravity on movement control strategies
- Practical assessments to determine force management capabilities
- Identifying sensory reweighting ability (proprioceptive visual vestibular)
- How to use specific feedback markers to guide treatment plan
- Neurology of breath coordination and its influence on muscle tone
- Rib cage & diaphragm coupling and their influence on midline and limb movement
- Practical breathing assessments to guide your treatment & rehabilitation
- Breathing strategies to reduce muscle tone and improve midline coordination
- Integrating breath coordination with limb loading
- Practical midline kinematic assessment
- Midline case studies

# Week 3

- Practical neurology of upper and lower limbs
- The importance of the limb for force coupling and load distribution
- Practical upper limb force coupling assessments
- Practical lower limb force coupling assessments
- Practical limb and midline dissociation assessments
- Upper limb and lower limb loading strategies and progressions
- Specific upper limb and lower limb case studies



#### Week 4

- The importance of improving tissue awareness via cortical mapping
- Feedback-focused cortical mapping assssment
- How to develop a treatment plan based on the conscious dynamics of pain
- Lower limb cortical mapping interventions
- Upper limb cortical mapping interventions
- Case studies

# Halfway Live Zoom Meeting (will be recorded)

### Week 5

- Integrating a multi-sensory approach with a graded exposure process
- Understanding "neurotag reconditioning" and why a top-down approach matters
- How to explain to the client why it's important to integrate higher order sensory systems
- Specific cases where it's crucial to understand load tolerance of the sensory systems
- Sensory mismatch influences on persistent pain

# Week 6

- Vestibular system Integration
- Vestibular system load capacity testing
- Vestibular reflexes and their influence on spinal control
- How to load the vestibular system to drive predictive control at the spine and limbs
- Why poor vestibular coordinative variability can lead to increased spinal tension
- Layering vestibular drill with specific peripheral tissue/proprioceptive loading strategies
- Integrating the vestibular system into a graded exposure rehab plan
- Case studies

### Week 7

- Visual system integration
- Understand the importance of the visual system on movement control
- Understand the connection between the eyes and the spine
- Practical strategies to identify ocular muscle coordination



- Eye & head movement coupling strategies
- Practical strategies to improve poor eye muscle coordination
- Integrating tissue loading with visual system
- Combining breath coordination, eye movement, and spinal/midline movement for pain

### Week 8

- The TMJ and its influence on neck & spinal pain
- Trigeminal nerve/jaw influence on spinal & upper extremity pain presentations
- TMJ load capacity testing & integration
- Specific TMJ loading strategies and layering techniques with spine
- Importance of tongue position and isometric loading for neck & spinal pain
- Manual strategies for TMJ loading
- Structuring multi-sensory graded exposure rehab
- Case studies

Final Live Zoom Meeting (will be recorded)