

Module VI

Lumbar and Advanced Lower Quadrant

Format: 3-day onsite lecture/lab, 6-week online learning module including discussion board, videos of technique, power point presentations on relevant topics, course manual, descriptive anatomy text.

Moderators: Jim Meadows BSCPT, MCPA, FCMT, lecturer; moderator; Gail Molloy PT, OCS, COMT, Moderator/Lecturer; Fred Stoot PT, COMT, FCMT; Scott Gallant, PT, FAAOMPT

Contact: Dave Bender 410-258-4721, d1d1b@aol.com

Duration: 8 weeks

Course syllabi, course description, educational objectives, requirements for successful completion, and teaching methods.

Description: This course is designed to build on the prior courses introducing advanced evaluation and manipulation techniques. Hip and knee evaluation and manual therapy treatment techniques will also be covered in this module. Attention will be given to selected manual therapy interventions, indications and contraindications for the Lumbar spine, SIJ, hip and knee.

Education methods will include: 24hrs classroom didactic training and lab, review and online testing of course material, course manual, supplemental videos and 25hrs of online guided learning.

Objectives and Requirements for Completion: Passing all online exams with a grade of 80%. Clinical skills evaluation practical passing grade of 70%.

Syllabi:

Module V Lower Quadrant *in class	Topics
Anatomy , biomechanics and pathomechanics <ul style="list-style-type: none">• Descriptive• Surface*• Applied *	<ul style="list-style-type: none">• Lumbar spine• Sacroiliac and pubic joints• Hip• Knee• Tibiofibular joints
Conditions (incidence/ prevalence, and presentation*)	<ul style="list-style-type: none">• Labral tears• Traumatic and nontraumatic meniscal tears• Traumatic and nontraumatic ligament tears• Systemic and degenerative arthropathies (AKS, RA, reactive arthritis. OA)• Traumatic and microtraumatic arthritis

Module V Lower Quadrant *in class	Topics
	<ul style="list-style-type: none"> • Healthy, stress and pathological bone fractures • Traumatic and non-traumatic ligament tears • Neoplastic disease • Peripheral neuropathy • Articular dysfunction • Osteoporosis • Tendonopathies • Tenosynovitis and tenosynovitis
Clinical reasoning*	<ul style="list-style-type: none"> • Pattern recognition • Hypothetic-deduction • Illness scripts • SFD • Bias correction • DDx, • Diagnosis specific treatment • Prognosis • Advanced differential diagnosis • Intermediate complex problem solving • Intra-unit silent etiologies
Assessment techniques Medical diagnostic* Segmental*	<ul style="list-style-type: none"> • Scan examination • Selective tissue tension examination • Neurophysiological <ul style="list-style-type: none"> ○ multifidus, quadrants ○ local stabilizers and quadrants • Biomechanical <ul style="list-style-type: none"> ○ PPIVMs, position tests, PAIVMs ○ PPMs and PAMs ○ Screening tests (quadrants etc.) ○ SIJ kinetic tests
Treatment and management techniques*	<ul style="list-style-type: none"> • Specific exercise prescription for above conditions • Pain modulation treatments <ul style="list-style-type: none"> ○ Low grade mobilizations ○ Electrical stimulation ○ Exercises ○ Cryo-thermal • Rest • Referral out for medical treatment and investigation • Direction specific lumbar manipulation (flex/ext) • Direction specific SIJ manipulation • Stabilization therapy SIJ • Movement rehabilitation therapy • Manipulation tibiofibular joints • Manipulation knee joint

Module V Lower Quadrant *in class	Topics
Medical management and investigations for above conditions	<ul style="list-style-type: none"> • Alternative manipulation hip joint • X-ray • MRI • CAT scan • Radio-uptake scans • Blood work

Onsite intensive: 24 didactic/Lab hours. 15 hrs independent study.

SPECIFIC COURSE OBJECTIVES:

Hip, Knee, SIJ and Lumbar Spine

1. Clinical applications and interpretation of Cyriax clinical exam.
 - a. Interpreting active passive, and resistive testing
 - b. Performing and interpreting Passive physiological intervertebral motion testing
 - c. Stability testing of the spine
 - d. Neurologic testing
 - e. Red and yellow flag recognitions and interpretation.
 - f. Selected intervention for Condition scripts.
2. Condition Scripts
 - a. Identification of typical presentation of selected pathology for the Lumbar Spine and Pelvis.
 - b. Hypothesis testing for specific illness scripts
3. Selected Interventions based on clinical evidence:
 - a. Appropriate application of Stabilization techniques
 - b. Appropriate application of Therapeutic exercise and PNF
 - c. Selected manipulation
 - i. Hip
 - ii. SIJ
 - iii. Lumbar
 - iv. Knee
4. Online Course Learning Objectives
 - a. Understand the application of selective tissue tension testing system to the spine and extremity joints and recognize, interpret and appraise the test results of the following:
 - i. contractile and inert tissues lesions
 - ii. dural and neural mobility problems
 - iii. spinal cord, spinal nerve and nerve root compression/compromise signs and symptoms
 - iv. normal and abnormal end feels to motion
 - v. capsular and non-capsular patterns of restriction
 - vi. tendonitis, tendonosis, tenosynovitis and bursitis
 - vii. resisted/resistive tests
 - viii. Scanning examinations of the lumbo/sacral spine, Hip, Knee, and SIJ

- a. A complete and detailed history and systems review
- b. Active, passive & resisted (resistive) tests to determine status of tissues
- c. Routine neuromeningeal tension/mobility tests
- d. Neurological tests of function spinal nerve, nerve root, peripheral nerve
- e. Neurological tests for function of CNS including dynamic stretch reflexes (deep tendon, clonus), nociceptive reflexes (Babinski, Hoffman etc.)
- f. General stress, postero/anterior pressures, general lumbar torsion, sacroiliac, peripheral ligamentous)
- g. Dizziness screening of indicators of serious pathology
- ix. Recognize the presence of serious or worsening neurological signs
- x. Recognize red and yellow flags
- xi. Develop a provisional hypothesis/diagnosis and apply deductive reasoning to rule in or out the hypothesis
- xii. Identify and categorize the musculoskeletal structures or functions that require intervention or further examination, including: posture, articular & soft tissue, neurological, dural, vascular and adjacent joints
- xiii. Apply theories of inflammation and wound repair/healing to deep transverse friction application

Apply the principles of the effect and application of basic spinal exercise principles