

**NAIOMT 610 - LEVEL II LOWER QUADRANT:  
INTERMEDIATE MOBILIZATION/MANIPULATION**

**HIGHLIGHTS**

- Detailed manual physical therapy to evaluate the joint in dysfunction
- Application of clinical biomechanics
- Efficient scanning examination and selective tissue tension diagnosis
- Detailed passive mobility and stability testing to lumbar spine and lower limb joints
- Passive segmental mobilization to lumbar spine and lower thoracic spine
- Deep transverse friction massage techniques to extremity joints
- Manipulation/thrust techniques to the ankle and mobilization to lower limb joints

\* *In States that have restrictions on PT use of extremity manipulation/thrust, the syllabus may be modified*

**CLOCK HOURS:** 42 contact hours, typically 50% lab in 6-day course  
or 2, 3-day courses often divided into extremity and spinal

**COURSE DESCRIPTION:**

This six-day course teaches the student detailed biomechanical evaluation and manual physical therapy intervention of the lower quadrant: focusing on the lumbar spine and lower limb joints. The application of clinical biomechanics to the assessment and the treatment of abnormal biomechanics and its resulting joint and soft tissue dysfunction will be discussed, demonstrated and practiced. Currently available literature and evidence for examination and intervention will be discussed.

**AUDIENCE:**

Physical Therapists

**PRE-REQUISITES:**

- ❖ Licensed Physical Therapist (*copy of current PT license required*)
- ❖ It is highly recommended that the course participant has completed NAIOMT 500 (level I: Differential Diagnosis) or equivalent

**COURSE GENERAL OBJECTIVES:**

The course will further the manual physical therapists' skills in biomechanical and pathological theories and knowledge, recognition and analysis of lumbar spine and lower limb joint conditions and movement dysfunctions that benefit from OMPT techniques and assessment and selection of mobilization/manipulation techniques for the lumbar spine and lower extremity joints.

**SPECIFIC COURSE OBJECTIVES:**

At the completion of this course, the participants will be able to:

1. Apply biomechanical knowledge of the lumbar, lower thoracic and lower extremity joints to the examination and diagnosis/hypothesis of the movement dysfunction of the joint
2. Perform an objective examination (tests and measures) of the lumbar, lower thoracic and lower extremity joints, including palpation of articular and soft tissue structures, passive intervertebral movement and stability tests
3. Analyze and evaluate the history and examination data to prioritize the patient's problem list, especially identifying the potential stage and irritability of the dysfunctions
4. Identify the indications and contraindications for the application of mobilization procedures to the segmental lumbar and lower thoracic spinal and lower extremity joints

5. Apply knowledge of the various pain modulation theories and how these may be utilized in manual physical therapy of the lower quadrant
6. Apply active and passive mobilization procedures and combined movements to the lumbar spine and selected lower thoracic and lower extremity joints in any position using the correct grade, direction and duration and explain the mechanical and physiological effects
7. Identify the indications and contraindications to peripheral manipulation (thrust)
8. Perform a manipulation to the ankle joint correctly and to the appropriate pathology
9. Identify the indications and contraindications to deep transverse frictions, and apply effectively
10. Assess static and dynamic postures and implement appropriate correction
11. Evaluate treatment effectiveness in order to progress or modify treatment;
12. Plan an effective home program including spinal care and joint mobilization and instruct the patient in the same
13. Record examination data, problems, plans and procedures in a standardized format
14. Further develop self reliant learning strategies
15. Discuss the strengths and weakness' of manual physical therapy assessment and interventions as demonstrated by the current literature and evidence
16. Meet the patient/client needs by providing safe and effective manual physical therapy interventions to the following joints:
  - a. lumbar spine
  - b. lower thoracic
  - c. hip
  - d. knee
  - e. superior tibiofibular
  - f. inferior tibiofibular
  - g. ankle
  - h. subtalar
  - i. intertarsal, including cuboid

**MAJOR TOPICS:**

*The descriptions of the minimum course components may vary according to the instructor's assessment of the needs or expertise of the class. Some areas may be covered in guided independent study.*

- 1) Applied anatomy & physiology of the lumbar spine & lower extremities
- 2) Biomechanical principles to the clinical presentation, assessment and intervention of lumbar spine and lower extremity joints
- 3) Clinical Theory: evaluation and assessment of the joints of the lower quadrant dysfunctions
- 4) Practical Skills
  - a) lumbar and lower thoracic scanning examination
  - b) lower limb examination and detailed ligamentous stress tests
  - c) specific uniplanar (symmetrical) segmental physiological and accessory passive mobility examination and treatment techniques procedures for the lumbar and lower thoracic spine and extremity joints including combined motions
  - d) deep transverse friction massage to extremity joints
  - e) manipulation (thrust) to the ankle
- 5) Conditions (dysfunctions or pathologies): the signs and symptoms clusters, pathology and intervention/treatment or management of the common conditions