

# AN EVIDENCE-BASED APPROACH TO PREVENTION, EXAMINATION, & INTERVENTION OF THE KNEE

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## Course Objectives:

- Identify anatomy & biomechanical principles of the knee.
- Describe the techniques used to **successfully perform** surface palpation of the structures of the knee.
- **Identify** the etiology & underlying pathological processes for specific musculoskeletal conditions of the knee.
- **Describe** mechanisms of injury & processes of repair in the tissues of the knee.
- Identify signs & symptoms of the lower extremity that are beyond the scope of physical therapy practice (**medical screening**).
- Demonstrate the ability to **perform & interpret** the results of orthopedic special tests for the knee.
- Describe & demonstrate the physical therapy **examination, evaluation, diagnosis, & prognosis** appropriate for clients with musculoskeletal involvement.
- Demonstrate appropriate **joint mobilization techniques** of the knee to facilitate normal arthrokinematic motion.
- **Describe physical** therapy treatments appropriate for limited function of the musculoskeletal system.
- Describe **functional testing** & criteria to return to athletic participation or work.

## Course Overview:

This course begins with a brief overview of the anatomy, biomechanics, & surface palpation of the knee. Medical screening, examination, evaluation, diagnosis, & prognosis of knee injuries are explored in detail. The intervention component includes the theory & practical application of therapeutic exercises for the lower extremity based on pathology of the various knee structures. The principles of joint mobilization, range of motion, stretching, aquatics, & progressive resistance activities are based on the most recent evidence available. In addition, all of the orthopedic special tests & joint mobilization techniques are explored in a laboratory setting.

## **Course Schedule (15 contact hours; 5.5 Direct Access hours):**

### **DAY #1 - Morning:**

- **8:00 - 8:30** Introduction
- **8:30 - 10:00** Anatomy, biomechanics, & surface palpation
- **10:15 - 11:30** Preventing knee injuries
  - Screening for potential injuries
  - Santa Monica PEP program
  - Prophylactic bracing

### **DAY #1 - Afternoon:**

- **11:30 - 12:30** Lunch
- **12:30 - 2:30** Physical Therapist toolbox
- **2:45 - 5:00** Physical Therapist toolbox (continued)
  - Gathering data
  - Mechanism of injury
  - Client interview & toolbox tests
  - Medical screening
  - Special tests with statistical support
  - Clustering of signs & symptoms
  - Isokinetics & functional testing

### **DAY #2 - Morning:**

- **8:00 - 9:00** Interventions - Surgical procedures
- **9:15 - 10:45** Intervention - Modalities
- **11:00 - 12:00** Interventions - Mobilization techniques

### **DAY #2 - Afternoon:**

- **12:00 - 1:00** Lunch
- **1:00 - 3:00** Therapeutic exercises
  - Passive to resistive
  - Open & closed kinetic chain
  - Aquatics
- **3:15 - 4:30** Diagnostic algorithms & specific interventions by structure
- **4:30 - 5:00** Conclusion & questions