

# SPTe Clinical Apprenticeship Model

## Expert Clinical Reasoning

OD- Overview of Clinical Reasoning  
(3 hours)

OD-Expert Examination skills  
(2 hours)

OD- Applying the Best interventions  
(3 hours)

L- Grand Round / Virtual patient cases  
(2-4 hours)

IP- Patient Care Mentorship  
(Added feature)

## Expert Spine Care

OD- Medical Screening and Examination

OD- Cervical/TMD Guidelines

OD- Thoracic Spine Guidelines

OD- Lumbopelvic Guidelines

L- Webinar discussion  
(2 hours)

IP-CT Skills Development  
(12 hours)

IP- LBP Skills Development  
(12 hours)

IP- Patient Care mentorship  
(15 Hours)

## Lower Quadrant

OD- Medical Screening and Examination

OD- Hip Subgroups

OD- Knee Sub Groups

OD- Ankle/Foot Subgroups

L- Webinar discussion  
(1 hour)

IP- Skills Development  
(12 hours)

IP- Patient Care mentorship  
(15 Hours)

## Upper Quadrant

OD- Medical Screening and Examination

OD- Shoulder Subgroups

OD- Elbow Sub Groups

OD- Wrist/Hand Subgroups

L- Webinar discussion  
(1 hour)

IP- Skills Development  
(12 hours)

IP- Patient Care mentorship  
(15 Hours)

OD- On demand video content and quizzes

L- Live online seminar for Q/A

IP- In-person training

## Course Outlines

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# Expert Clinical Reasoning

## 10 CEU's

OD- Overview of Clinical Reasoning model  
(~3 hours)

OD-Expert Examination skills  
(~2 hours)

OD- Applying the Best interventions  
(~3 hours)

L- Virtual Mentorship  
(~2 hour)

IP- Patient Care Mentorship (Optional)  
(5 Hours of Interactive Observation with SPTE Mentor)

## Expert Clinical Reasoning

### OD- On Demand Curriculum: (10 CEU's)

1. Clinical reasoning model
  - a. Therapist biases / Evidence based practice
  - b. Integration of ICF terminology into Clinical Practice Guidelines
  - c. Considering contextual factors, psychological factors, and mechanisms of pain,
  - d. Neuromusculoskeletal practice patterns
  - e. Considering chronicity, irritability, severity, stability
  - f. Aligning interventions with pain mechanisms, practice pattern and irritability
2. Examination
  - a. Medical screening process
  - b. Need for imaging
  - c. Use of patient questionnaires
    - i. Condition specific, biopsychosocial, Prognostic (ex: STarT tool)
  - d. Elements of the examination
    - i. Standard elements
    - ii. Differentiating elements
  - e. Need for special tests
3. Interventions

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- a. Patient education
  - i. Educating about conditions utilizing words that heal vs. words that harm
  - ii. Motivational interviewing
  - iii. Pain science education – How to start the conversation
- b. Manual therapy
  - i. Mechanisms of manual therapy
  - ii. Biomechanical vs. neurophysiological vs. psychosocial rationale for manual therapy
- c. Motor function
  - i. Thinking beyond force production/strengthening
  - ii. Addressing motor control to enhance function
  - iii. Internal vs External feedback/cues
- d. Managing Central Sensitization
  - i. Foundations of Graded exposure
  - ii. Graded Motor Imagery

**L: Virtual Mentorship (2 CEU's)**

- 1. Grand Rounds
  - a. Interactive Webinar integrating learner lead patient case examples to walk through reasoning process and questions
- 2. Virtual Case
  - a. Learner demonstration of clinical reasoning process through a patient case provided in a presentation format.

**IP: OPTIONAL: In-Person Observational Mentorship with SPTE Mentor- (Additional 2 CEU's-Workshop)**

- 1. Interactive observation of SPTE mentor utilizing motivational interviewing techniques and pain science education through the implementation of the clinical reasoning model.

# Spine Specialty

OD- Medical Screening and Examination

OD- Cervical/TMD Guidelines

OD- Thoracic Spine Guidelines

OD- Lumbopelvic Guidelines

L- Webinar discussion / Virtual Mentorship  
(2 hours)

IP-Cervicothoracic Skills Development  
(12 hours)

IP- Lumbopelvic Skills Development  
(12 hours)

IP- Patient Care mentorship  
(15 Hours)

## Expert in Spine Care

### On Demand Content: (16 CEU's)

1. Medical Screening with focus on cervical and thoracic conditions
2. Mid cervical and upper thoracic joint and soft tissue deficits
  - a. ID patient patterns.
  - b. Intervention strategies for Neck pain associated with joint and soft tissue mobility deficits
  - c. Associated motor control deficits
3. Mid cervical and upper thoracic joint and soft tissue deficits (cont)
4. Upper Cervical joint and soft tissue deficits
  - a. ID patient patterns
  - b. Interventions strategies for headaches and suboccipital pain associated with joint mobility deficits and soft tissue irritability
  - c. Associated motor control deficits

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5. Cervical radiculopathy
  - a. ID patient subgroup
  - b. Intervention strategies for neck pain with radiating symptoms
6. Thoracic and rib joint and soft tissue deficits
  - a. ID and interventions for thoracic and costovertebral joint mobility deficits and soft tissue irritability
7. Medical Screening with focus on lumbar and pelvic conditions
8. Lumbar joint and soft tissue deficits
  - a. ID patient patterns
  - b. Intervention strategies for Lumbar pain associated with joint and soft tissue mobility deficits
  - c. Associated motor control deficits
9. Lumbar joint and soft tissue deficits (cont)
10. Sacroiliac (SI) joint and soft tissue deficits
  - a. ID a interventions for SI pain associated with joint mobility deficits and soft tissue irritability
  - b. Associated motor control deficits
11. Lumbar radiculopathy
  - a. ID patient pattern
  - b. Interventions for back pain with radiating symptoms
12. Lumbar radiculopathy (cont) and spinal stenosis
  - a. Include identifying symptoms and interventions related to neurogenic claudication related to stenosis
13. Spinal pain related to central sensitization
  - a. Id patient subgroup
  - b. Interventions strategies
14. Spinal pain related to central sensitization (review)
15. Summary of content and case presentations

**L- Live Webinar:**

1. Interactive discussion reviewing participant questions.

**IP- Blended In- Person Skills Development: (12 CEU's)**

1. Pre-viewing of On-demand Videos of techniques (3 Hours)
2. In-Person Skills development with Clinical Integration - (9 hours)
  - a. Manual Therapy
    - i. Instrumented assisted soft tissue techniques
      1. Myofascial decompression (cupping)
      2. Tool assisted soft tissue mobilization
    - ii. Joint mobilizations / Manipulation
      1. Mobilization w/ Movement
      2. Physiological / accessory mobilizations
      3. Contract / Relax techniques
  - b. Neuromotor Control Activities
    - i. Activation/ Inhibition techniques
      1. Taping integration
    - ii. Single to multi-joint strengthening activities
      1. Isometrics / Eccentrics / Concentric
    - iii. Functional integration of movement with feedback/cues
      1. Deadlift / Squat / RDL / Lunges etc.

# Expert in Lower Quadrant Care

OD- Medical Screening and Examination

OD- Hip Subgroups

OD- Knee Sub Groups

OD- Ankle/Foot Subgroups

L- Webinar discussion  
(2 hour)

IP- Skills Development  
(12 hours)

IP- Patient Care mentorship  
(15 Hours)

## Expert in Lower Extremity Care

### On Demand Content: (12 CEU's)

1. Medical Screening with a focus on the Lower Extremity
  - a. Review of Non-Musculoskeletal (MSK) diagnoses
  - b. Objective tools to rule in/out non- MSK diagnoses
2. Regional Interdependence, Functional Testing and Evaluation of the Lower Extremity
3. Hip: Mobility Deficits-
  - a. Hip OA and FAI diagnoses
  - b. Common treatment interventions- Focus on manual therapy
4. Hip: Neuromotor Control Deficits –
  - a. Acetabular Labral Tears/Extra-articular injuries
  - b. Common treatment interventions- Focus on Neurodynamic mobility
5. Hip: Power and Strength deficits –
  - a. Greater Trochanteric Pain Syndrome

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- b. Common treatment interventions- Focus on Corrective Exercises
- 6. Knee: Intraarticular knee injuries
  - a. Meniscal and Ligamentous injuries
- 7. Knee: Mobility Deficits-
  - a. Knee OA
- 8. Knee: Neuromotor Control Deficits –
  - a. Patellofemoral pain syndrome
- 9. Ankle/Foot:
  - a. Traumatic Ankle and Foot Injuries
- 10. Ankle/Foot:
  - a. Chronic Foot and Ankle Injuries
- 11. Functional and Return to Activity Testing
  - a. Functional Strengthening
    - i. Pregression and Progression of Exercises
- 12. Medical Procedures
  - a. Surgical Considerations and Regenerative Medicine (Injections etc)

**L- Live Webinar:**

- 1. Interactive discussion reviewing participant questions.

**IP- Blended In- Person Skills Development: (12 CEU's)**

- 1. Pre-viewing of On-demand Videos of techniques (3 Hours)
- 2. In-Person Skills development with Clinical Integration - (9 hours)
  - a. Manual Therapy
    - i. Instrumented assisted soft tissue techniques
      - 1. Myofascial decompression (cupping)
      - 2. Tool assisted soft tissue mobilization
    - ii. Joint mobilizations / Manipulation
      - 1. Mobilization w/ Movement
      - 2. Physiological / accessory mobilizations
      - 3. Contract / Relax techniques
  - b. Neuromotor Control Activities
    - i. Activation/ Inhibition techniques
      - 1. Taping integration

- ii. Single to multi-joint strengthening activities
  - 1. Isometrics / Eccentrics / Concentric
- iii. Functional integration of movement with feedback/cues
  - 1. Deadlift / Squat / RDL / Lunges etc.

# Expert in Upper Quadrant Care

OD- Medical Screening and Examination

OD- Shoulder Subgroups

OD- Elbow Sub Groups

OD- Wrist/Hand Subgroups

L- Webinar discussion

(2 hour)

IP- Skills Development

(12 hours)

IP- Patient Care mentorship

(15 Hours)

## Expert in Upper Extremity Care

### On Demand Content: (10 CEU's)

1. Musculoskeletal Screening of the Upper Extremity
  - a. Differential Diagnoses and Pattern Recognition
2. Regional Interdependence, Functional Testing and Evaluation of the Upper Extremity
  - a. Thoracic/Ribs influence
3. Shoulder Mobility Deficits-
  - a. Scapulothoracic region and Thoracic Outlet syndrome
4. Shoulder Mobility Deficits –
  - a. The Glenohumeral joint
5. Shoulder Neuromotor Control Deficits
  - a. Scapulothoracic region and Glenohumeral Joint
6. Shoulder Power and Strength deficits:
  - a. The glenohumeral subacromial space and post operative care
7. Examination of the elbow, wrist, and hand
  - a. Fracture Screening

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8. Elbow Power and Strength Deficits:
  - a. Lateral Epicondylalgia and Soft tissue injuries of the elbow, wrist, and hand
9. Neural entrapments and Chronic Regional Pain Syndrome
10. Special topics
  - a. Post operative rehabilitation of the elbow, wrist, and hand
11. Functional and Return to Activity Testing
  - a. Functional Strengthening
    - i. Pregression and Progression of Exercises

**Live Webinar:**

1. Interactive discussion reviewing participant questions.

**Blended In- Person Skills Development: (12 CEU's)**

1. Pre-viewing of On-demand Videos of techniques (3 Hours)
2. In-Person Skills development with Clinical Integration - (9 hours)
  - a. Manual Therapy
    - i. Instrumented assisted soft tissue techniques
      1. Myofascial decompression (cupping)
      2. Tissue drag (Gua Sha)
    - ii. Joint mobilizations / Manipulation
      1. Mobilization w/ Movement
      2. Physiological / accessory mobilizations
      3. Contract / Relax techniques
  - b. Neuromotor Control Activities
    - i. Activation/ Inhibition techniques
      1. Taping integration
    - ii. Single to multi-joint strengthening activities
      1. Isometrics / Eccentrics / Concentric
    - iii. Functional integration of movement
      1. Pushes / Pulls / Presses

## Patient Care Mentorship

(1 CEU per 8 hours)

After completion of the Foundations of Clinical Reasoning Course, participants who choose the Clinical Specialist Apprenticeship or Orthopedic Specialty Tracks can complete up to 48 hours of patient care mentorship. Participants will be eligible for 16 hours of mentorship after completion of each of the CORE courses (SPINE, LE, UE). Patient care mentorship will occur while the participant treats their own patients. Participants will fill out a **Pre-mentorship form** for each scheduled patient. Mentorship hours can be broken into 2-4 different day increments depending on participant and mentor schedules. On the day of mentorship, 30-60 minutes will be set aside both prior and at the end of the day for Pre-mentorship / Post-Mentorship discussion to occur. We have included an example of a typical mentorship day:

### 7:30-8am- **Pre- Mentorship discussion**

- Participant will review Pre-Mentorship Form with mentor regarding patients for the day going over current thought process, hypothesis, previous interventions, and effects with intended goals for the days PT session.
- Mentors will work with the participant in identifying any key questions, providing suggestions for points of further evaluation or treatment strategies. This can include the practicing of different exam or treatment techniques or other clinical pearls.

### 8:00-Noon- **1:1 Participant lead Patient Care Mentorship**

- Participant will lead patient care with the assistance of their mentor. Depending on participant mentorship preference, this may include collaborative dialogue with the patient between the participant and mentor. Some dialogue may occur also external to the patient when indicated.

### Noon- 12:30pm- **Post mentorship discussion**

The mentor and participant will review any questions for the day while also highlighting the participants areas of strength and future development. Any techniques or skills that require further completion can also be reviewed and practiced. Participants will then establish 1-3 items they would like to focus on and grow before the next mentorship session.