



**COURSE SYLLABUS**

- a. **Course Title and Number:**  
**FMDT001** Introduction to Orthopaedic Manual Physical Therapy (OMPT)
- b. **Course Description:**  
This lecture and laboratory course is designed to teach the theory, rationale, and evidence supporting orthopaedic manual physical therapy (OMPT). Although the course is designed to enhance psychomotor skill in utilizing non thrust manipulation for the management of musculoskeletal disorders, systems review, diagnostic imaging, and lab, tests/measures will be addressed in the context of appropriate referral and interprofessional collaboration. The areas emphasized will be based on evidence from the literature.
- c. **Program offering the course:** McKenzie Institute USA Fellowship Program in OMPT
- d. **Credit hours:** N/A
- e. **Course Instructors:** Christopher Chase, Joseph Lorenzetti, Robert Robinson (Additional Faculty TBD)
- f. **Clock hours:** 209 hours which includes preclinical (105 hours) and theoretical/cognitive (104 hours) delivered asynchronously, synchronously and through self-study over period of 10 months.
- g. **Course prerequisites:** None
- h. **Course Objectives:** The student will be able to:
  - 1) Analyze patient characteristics of the following systems:
    - a. Cardiovascular/pulmonary
    - b. Lymphatic
    - c. Endocrine/reproductive/urogenital/GI system
  - 2) Understand how the following factors impact musculoskeletal care:
    - a. Histology
    - b. Nutrition
    - c. Epidemiology
    - d. Pharmacology
  - 3) Determine the appropriateness of the following tests and determine when to make appropriate referral:
    - a. Ancillary tests
    - b. EMG/NVC
    - c. EKGs
    - d. Lab studies
    - e. Imaging tests
  - 4) Describe the following characteristics of the spinal and extremity joints.
    - a. Articular surfaces
    - b. Resting position
    - c. Closed pack positions
    - d. Check rein structures
    - e. Capsular pattern
    - f. AAOS degrees of available motion
  - 5) Review of medical screening
    - a. Screening for disease or symptomology which can mimic musculoskeletal disease.
    - b. Assess red flags.
    - c. Select appropriate evidence-based screening tools.
  - 6) Describe the arthrokinematics and biomechanics of the spinal and extremity joints.
  - 7) Analyze the current evidence supporting the use of OMPT interventions.

- 8) Describe the Guide definitions of terms associated with OMPT tests, measures, and interventions.
- 9) Describe and demonstrate safety procedures associated with adverse outcomes resulting from OMPT application.
- 10) Analyze the signs and symptoms which determine the appropriateness of OMPT intervention.
- 11) Demonstrate patient position, clinician position, and force application in the delivery of OMPT assessments and interventions.
- 12) Make appropriate adjustments in application of manual therapy (e.g., grade, depth, frequency, duration) and patient positioning in response to simulated patient changes during intervention.
- 13) Demonstrate grade 1-4 non-thrust manipulation on simulated patients, remotely.
- 14) Demonstrate competence in both the technical application and interpretation of patient response to OMPT interventions utilized in the management of musculoskeletal disorders.
- 15) Discuss the indications for various types of manipulative treatments for the spine and extremity joints, not limited to manipulation.

**1. Outline of content:**

Attain knowledge regarding human systems review, diagnostic tests and measures, indications, and contraindications for non-thrust manipulative technique, vertebrobasilar tests and spinal stability tests.

**A. 10 Article summaries (22 hours) Theoretical/Cognitive**

The FiT will critically analyze 10 articles pertaining to OMPT and complete a *Journal Article Summary Form* answering 8 questions related to the articles. Responses will be reviewed and discussed via email with an assigned Fellowship Mentor with rubric. Passing is a minimum of 80%. Approximately one article is due monthly, or as assigned.

**B. 10 Chapter Summaries (50 hours) Theoretical/Cognitive**

Upon completion of reading and studying each chapter of *Orthopedic Manual Therapy – An Evidence Based Approach* by Chad Cook, the FiT will complete questions found at the end of each chapter of the text. Responses will be reviewed and discussed via email with an assigned Fellowship Mentor with rubric. Passing is a minimum of 80%. Approximately one chapter is due monthly, or as assigned.

**C. 10 Case Studies (40 hours) Pre-clinical**

Ten (10) OMPT cases which require advanced problem-solving skills will be assigned. Each case will include a completed assessment form with accompanying questions and supported by 2 references. The cases will cover both Spinal and Extremity patients and encourage utilization of OMPT skills beyond typical MDT procedures. Responses will be reviewed and discussed via email with an assigned Fellowship Mentor with rubric. Passing is a minimum of 80%. Approximately one case study is due monthly or as assigned.

**D. Systems review articles review and discussion boards (32 hours) Theoretical/Cognitive**

The FiT will review selected articles on review of body systems/medical screening and answer directed questions on discussion boards and appropriate responses based on presented questions. Feedback provided by mentor on discussion boards.

**E. Synchronous review of biomechanics, arthrokinematics, and OMPT non-thrust techniques (20 hours) Pre-clinical, Biomechanics and arthrokinematics self-study (15 hours), asynchronous study of technique videos (30 hours). (Total 65 hours) Pre-clinical**

The FiT will participate in a 2-hour synch session monthly during which the FiT will perform selected OMPT non-thrust techniques with live feedback provided by a mentor along with a synthesis around biomechanics and arthrokinematics. The FiT will engage in study of the joint arthrokinematics module for 1.5 hours each month and study of manual procedure videos 3 hours each month to prepare for each synch session to prepare for each synch session.

## **2. Description of teaching methods and learning experiences:**

In a modular format, faculty will utilize technology such as asynchronous video recordings as well as remote synchronous laboratory instruction to integrate the medial screening process and the attainment of clinical decision making and psychomotor skill attainment in non-thrust technique. A manual of selected techniques will also be provided to the students to enhance self-assessment and skill development. Immediate feedback regarding performance will be provided to the students throughout the synchronous session unit. Schoology will be utilized for discussion, analysis, and critique of the literature where appropriate.

### **Module 1 Cervical Spine**

1. Cervical spine non thrust techniques and arthrokinematics (synch)
2. Reading: Chapter 5, Cook text
3. Case study with 2 references
4. Systems review article/discussion board

### **Module 2 Temporomandibular Joint**

1. TMD non thrust techniques and arthrokinematics (synch)
2. Reading: Chapter 6, Cook text
3. Case study with 2 references
4. Systems review article/discussion board

### **Module 3 Thoracic Spine**

1. Thoracic spine non thrust techniques and arthrokinematics (synch)
2. Reading: Chapter 7, Cook text
3. Case study with 2 references
4. Systems review article/discussion board

### **Module 4 Shoulder Complex**

1. Shoulder non thrust techniques and arthrokinematics (synch)
2. Reading: Chapter 8, Cook text
3. Case study with 2 references
4. Systems review article/discussion board

### **Module 5 Elbow-Wrist-Hand**

1. Elbow/wrist/hand non thrust techniques and arthrokinematics (synch)
2. Reading: Chapter 9, Cook text
3. Case study with 2 references
4. Systems review article/discussion board

### **Module 6 Lumbar Spine**

1. Lumbar non thrust techniques and arthrokinematics (synch)
2. Reading: Chapter 10, Cook text
3. Case study with 2 references
4. Systems review article/discussion board

### **Module 7 Sacroiliac Joint and Pelvis**

1. SIJ non thrust techniques and arthrokinematics (synch)
2. Reading: Chapter 11, Cook text
3. Case study with 2 references
4. Systems review article/discussion board

### **Module 8 Hip Complex**

1. Hip non thrust techniques and arthrokinematics (synch)
2. Reading: Chapter 12, Cook text
3. Case study with 2 references
4. Systems review article/discussion board

### Module 9 Knee

1. Knee non thrust techniques and arthrokinematics (synch)
2. Reading: Chapter 13, Cook text
3. Case study with 2 references
4. Systems review article/discussion board

### Module 10 Foot and Ankle

1. Foot and ankle non thrust techniques and arthrokinematics (synch)
2. Reading: Chapter 14, Cook text
3. Case study with 2 references
4. Systems review article/discussion board

### 3. Evaluation of student learning:

Successful completion of the course requires the following:

Module	Assignment	Synchronous session	Due date
Self-study	Course joint manual, assigned readings	Discussed during synch	
<b>1. Cervical Spine</b>	1. Joint manual self-study 2. Chapter 5, Cook text 3. Case study 4. Systems review article / Discussion board	1. Cervical spine non-thrust and arthrokinematics	1. Jan 8 2. Jan 15 3. Jan 22 4. Jan 29
<b>2. Temporomandibular Joint</b>	1. Joint manual self-study 2. Chapter 6, Cook text 3. Case study 4. Systems review article / Discussion board	1. TMJ non-thrust and arthrokinematics	1. Feb 5 2. Feb 12 3. Feb 19 4. Feb 26
<b>3. Thoracic Spine</b>	1. Joint manual self-study 2. Chapter 7, Cook text 3. Case study 4. Systems review article / Discussion board	1. Thoracic non-thrust and arthrokinematics	1. March 4 2. March 11 3. March 18 4. March 25
<b>4. Shoulder Complex</b>	1. Joint manual self-study 2. Chapter 8, Cook text 3. Case study 4. Systems review article / Discussion board	1. Shoulder non-thrust and arthrokinematics	1. Apr 8 2. Apr 15 3. Apr 22 4. Apr 29
<b>5. Elbow-Wrist-Hand</b>	1. Joint manual self-study 2. Chapter 9, Cook text 3. Case study 4. Systems review article	1. Elbow-Wrist-Hand non-thrust and arthrokinematics	1. May 6 2. May 13 3. May 20 4. May 27
<b>6. Lumbar Spine</b>	1. Joint manual self-study 2. Chapter 10, Cook text 3. Case study 4. Systems review article / Discussion board	1. Lumbar non-thrust and arthrokinematics	1. June 3 2. June 10 3. June 17 4. June 24
<b>7. Sacroiliac Joint and Pelvis</b>	1. Joint manual self-study 2. Chapter 11, Cook text 3. Case study	1. SIJ non-thrust and arthrokinematics	1. July 8 2. July 15 3. July 22 4. July 29

	4. Systems review article/Discussion board		
8. <b>Hip Complex</b>	1. Joint manual self-study 2. Chapter 12 , Cook text 3. Case study 4. Systems review article/Discussion board	1. Hip non-thrust and arthrokinematics	1. Aug 5 2. Aug 12 3. Aug 19 4. Aug 26
9. <b>Knee</b>	1. Joint manual self-study 2. Chapter 13 , Cook text 3. Case study 4. Systems review article/Discussion board	1. Knee non-thrust and arthrokinematics	1. Sep 9 2. Sep 16 3. Sep 23 4. Sep 30
10. <b>Foot and Ankle</b>	1. Joint manual self-study 2. Chapter 14 , Cook text 3. Case study 4. Systems review article/Discussion board	1. Foot and ankle non-thrust and arthrokinematics	1. Oct 7 2. Oct 14 3. Oct 21 4. Oct 28

**Grading Guidelines are as follows:**

> 80% satisfactory

< 80% unsatisfactory

Grading will consist of satisfactory completion of Chapter questions, Case studies, Article reviews, and Discussion Boards along with feedback provided via assigned rubric. A technique rubric for the synchronous sessions will be used to provide feedback on psychomotor performance.

- Checkouts on the manual procedures will take place during the synchronous sessions. If a student is not successful at the minimum mastery level on the practical checkout (<80%), it must be taken over following a remedial period not to exceed 14 days.

**4. Required Texts/Media:**

**Textbook references –**

• **Required:**

- Cook CE. Orthopedic Manual Therapy An Evidence Based Approach, Upper Saddle River, NJ: Pearson Prentice Hall; 2007.
- Simon C. Joint manual

• **Recommended:**

- Levangie PK, Norkin CC. Joint Structure & Function, 4<sup>th</sup> ed., Philadelphia: F.A. Davis Co.; 2005.
- Magee DJ. Orthopaedic Physical Assessment, 5<sup>th</sup> ed., St. Louis: Saunders;2008.

**Required Readings:**

- Required literature references can be accessed through the Tufts University Library Website. <https://hirshlibrary.tufts.edu> and Schoology  
Use Quick Links: Resources by Subject
- Additional current readings and references may be provided prior to the course and/or will be posted on Schoology.
- A manual of selected techniques will also be provided to the students to enhance self-assessment and skill development.

**5. Digital Literacy:**

It is important that students are able to quickly become proficient with new technological platforms. Throughout this course you will be expected to work within all programs listed below. Familiarize yourself with all programs and be able to move between them comfortably.

Communication mediums:

**Email:**

You are required to use your personal email address when communicating with faculty and staff. If a personal email address is not used, a response cannot be guaranteed.

**Zoom:**

This is used for chats and meetings. You will also use this for some communication with group members

Software programs:

**Schoology:**

All coursework will utilize Schoology, therefore, check Schoology regularly for course announcements.

**6. Disability Statement:**

Any student who has a documented disability should meet with the course instructor during office hours to discuss ways to arrange accommodations to complete the requirements and expectations of this course.