



FEDERAL UNIVERSITY OF SÃO CARLOS
CENTER OF BIOLOGICAL AND HEALTH SCIENCES
GRADUATE PROGRAM IN PHYSICAL THERAPY
Concentration: Physical Therapy and Functional Performance
Via Washington Luís, Km 235 – São Carlos, SP 13.565- 905
Phone: (16) 3351-8448 E-mail: ppgft@ufscar.br

**COURSE: FIT-148 - Manual Therapeutic Resources in
Musculoskeletal Disorders**

Credits: 6

Course Load: 90hrs.

Instructor: Paula Rezende Camargo, Ph.D.

Course Overview:

1. Reflection on the concepts of pain, nociception, hyperalgesia, allodynia, hypomobility, hypermobility, referred pain, point myofascial trigger, among other terminologies frequently used in the practice of manual therapy.
2. Reflection on the evolution of manual therapy and its various approaches/methods.
3. Discussion of scientific evidence on the effectiveness of manual techniques, clinical prediction rules and identification of scientific barriers that influence the clinical practice of therapy hand in different joints of the human body (spine and upper and lower extremities).
4. Study of neuroscience of pain and its clinical application focused on the biopsychosocial approach of the patient with musculoskeletal pain; reflection on the shape to approach the patient who suffers from pain.

Course Materials:

1. LEVANGIE PK, NORKIN CC. Joint structure and function. A comprehensive analysis. 4^a ed. Philadelphia: F.A. Davis Company, 2005.
2. MAITLAND GD. Maitland Manipulação Vertebral. 7^aed. Elsevier Editora, 2007.
3. HING W, HALL T, RIVETT D, VICENZINO B, MULLIGAN B. The Mulligan Concept of manual therapy. Textbook of techniques. Elsevier Australia, 2015.
4. MINTKEN et al. A model for standardizing manipulation terminology in physical therapy practice. JOSPT. 2008.
5. KALTENBORN FM. Fisioterapia manual: Coluna. McGraw-Hill Interamericana.
KALTENBORN FM. Fisioterapia manual: Extremidades. McGraw-Hill Interamericana.
6. BIALOSKY et al. The mechanisms of manual therapy in the treatment of musculoskeletal pain: A comprehensive model. 2009. Man Ther, 14: 531-538.

7. GORGOS et al. Inter-clinician and intra-clinician reliability of force application during joint mobilization: A systematic review. *Man Ther.* 2014. 19: 90-96.
8. KINGSTON et al. The effects of spinal mobilizations on the sympathetic nervous system: a systematic review. *Man Ther.* 2014. 19(4): 281-287.
9. LOUW A, NIJS J, PUENTEDURA EJ. A clinical perspective on a pain neuroscience education approach to manual therapy. *J Man Manip Ther.* 2017. 25(3): 160-168.
10. SMART et al. Mechanisms-based classification of musculoskeletal pain: Part 1 of 3: Symptoms and signs of central sensitization in patients with low back pain (leg) pain. *Manual Therapy.* 2012.
11. SMART et al. Mechanisms-based classification of musculoskeletal pain: Part 2 of 3: Symptoms and signs of peripheral neuropathic pain in patients with low back pain (leg) pain. *Manual Therapy.* 2012.
12. SMART et al. Mechanisms-based classification of musculoskeletal pain: Part 3 of 3: Symptoms and signs of nociceptive pain in patients with low back pain (leg) pain. *Manual Therapy.* 2012.
13. VIGOTSKY AD, BRUHNS RP. The role of descending modulation in manual therapy and its analgesic implications: A narrative review. *Pain Res Treat,* 2015: 292805.
14. ZEGARRA-PARODI et al. Effects of pressure applied during standardized spinal mobilization on peripheral skin blood flow: A randomised cross-over study. *Man Ther.* 2016, 21:220-226.