



**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

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**COURSE: FIT-532 Topics in Evaluation and Intervention in Neurological
Physical Therapy**

Credits: 6

Course Load: 90 hrs.

Instructor: Thiago Luiz de Russo, Ph.D.

Course Overview:

Discussion of articles and presentation of seminars about topics in Neurologic Physical Therapy evaluation and intervention. Examples of topics:

1. Notions of molecular biology and laboratory research techniques applied to neuromuscular diseases and rehabilitation models.
2. Spasticity: pathophysiology and clinical implications.
3. Neuromuscular plasticity.
4. Motor control in central nervous system injuries.
5. Stroke: pathophysiology, evaluation, and treatment.
6. Spinal cord injuries: pathophysiology, evaluation, and treatment.
7. Neurodegenerative diseases: Parkinson's and Alzheimer's diseases.
8. Peripheral nervous system and skeletal muscle disorders.

Course Materials:

1. Amato AA; Russell JA. Neuromuscular Disorders. 2008. McGraw-Hill Medical.
2. Engel AG. Myology. 2004. New York : McGraw-Hill.
3. Lundborg G. Nerve injury and repair: regeneration, reconstruction, and cortical remodeling. 2 ed. 2004. Philadelphia: Elsevier.
4. Kandel, E. R.; Schwartz, J. H.; Jessell T. M. Princípios da Neurociência. 4a ed. 2003. Ed Manole.
5. Relevant articles in the field.