SURFACE ELECTROMYOGRAPHY APPLIED TO PHYSICAL ASSESSMENTAND EXERCISE(2024086)

COURSE SYLLABUS:

The course is focused on leveling the concepts about the fundamentals of neurophysiology of muscle contraction, the roles of voltage-dependent proteins, neurotransmitters and cellular organelles, while aimsto establish any relationship with the physical exercise.The course will also describe the different types of electromyography, discussing the potential and limitations for the diagnosis and prospective monitoring of neuromuscular capacities under the influence of immobility and physical exercise (biofeedback).The parameters obtained by surface electromyography will be describedin terms of amplitude, time and frequency domains.The relationship between the results whiledata is collected and those substantiated by the literature will be discussed.

GOALS:

To discuss the basic concepts in acquiring data to assess muscle excitationassociated with electromyography.To critically evaluate the results obtained by articles in the area of Physical Education.To train graduate students to analyze research-related data concerning electromyography and Physical Education, also associated toexercise prescription for treatment, prevention, and physical performance, by interpreting the observed outcomes.

BIBLIOGRAPHY:

Books:

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Articles:

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