

LEARNING AND MOTOR CONTROL, PROTOCOLS OF PHYSICAL ACTIVITY IN HEALTH, PREVENTION AND DISEASE

Course ID: M-EDF/01

ECTS: 14

2nd Year: 2st semester

Teacher: PROF. IELLAMO Ferdinando

Objectives

Course objective: train highly qualified professionals that will work on fitness and wellness, through:

- The basis of functional and physical assessment in relation to the specific characteristics of each person.
- Planning of physical activity and training paths for groups and/or individuals.
- Planning of health promoting learning courses and sport activities.
- Planning of physical activities and rehabilitation programs for specific diseases.
- Management of relations and communications with institutions, associations and families.
- Knowledge of the main rules and laws regarding physical activity and the trainer's legal responsibilities.
- Ability to recognize and avoid life-threatening situations that can occur during physical activity.
- First Aid procedures and manoeuvres.

Through these skills the graduates will be able to operate as qualified athletic trainers, sports instructors and wellness specialists. They will also have the expertise to cooperate with medical teams in the treatment and prevention, through physical activity, of chronic-degenerative diseases such as Metabolic Syndrome, Obesity, Hypertension, Ischaemic Cardiac Disease.

Program:

- Principles of cardiovascular and respiratory physiology and regulatory mechanisms.
- Acute cardiovascular and respiratory responses to different types of exercise and regulatory mechanisms.
- Cardiovascular adaptations to different exercise training modalities and their underlying mechanisms
- Autonomic adaptations to exercise training: healthy subjects, cardiac patient and athletes
- Physical activity as profilaxis and therapy.
- Exercise training in the rehabilitation of cardiac patients: principles, protocols and effects.
- Monitoring and programming exercise training in health and disease through autonomic nervous system assessment

Textbooks:

ACSM *Guidelines for Exercise Testing and Prescription*, American College of Sports Medicine. Ed. Lippincott Williams & Wilkins

P. Buono F. Salvatore, *Attività fisica per la salute*, Casa Editrice Idelson-Gnocchi

Material given during the class lessons

Exam method: written and oral exam