

# University of Verona Sport and Movement Science A.A. 2015-2016

# Motor Control and Movement Analysis

## Professor Paola Cesari

#### Aim

By attending the class the student will learn the main approaches developed (both holistic and deterministic) for describing and predicting the human movement.

The students will receive basic information about the control and learning of human movement.

In particular, the control of movement, the perception action coupling and the related emergent features defined from movement behavior.

## Program

Dimensional analysis: dimensions and units of measurements. Dimensional analysis applications in complex movements and in sport. The brain and its behavior, the voluntary movement, locomotion, the posture, the eye control, the vestibular system. Being able to interpret and read graphs: linear and non linear measures.

### Exam

Written exam with the possibility to ask for an extra oral exam in case of positive evaluation for the written part.

#### Texts:

Dimensioni e Vita, McMahon, Bonner. Zanichelli Editore. Capitoli 2-3 (primo capitolo da leggere).

Principi di neuroscienze, Kandel, Schwartz, Jessell. Casa Editrice Ambrosiana. (terza edizione). Capitoli: 1, 33, 37, 38, 39, 40, 41.

Psicologia dello sport e del movimento umano a cura di Spinelli D. Zanichelli. (Capitoli: 1 & 2)