UNICUSANO
ROME

Italian code: M-EDF/02 (old) MEDF-01/B (new) **Credits: 9**
Course: Methodological Bases of Training
Main language of instruction: Italian
Other language of instruction: English

Head instructor
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Objectives

The course of Methodological Bases of Training is a first approach to the methodology of training in sports activities and constitutes the continuation of the teaching path developed in Bases of Physical Activities. The course of Methodological Bases of Training aims to outline the concepts and methods related to the training process by analyzing the predisposing factors, the fundamental principles and characteristics of the training load, the functional evaluation, and the periodization of training.

Pre-requisites

- Anatomy and Physiology

Course structure

- Physical, biomechanical and physiological factors predisposing performance,
- performance model and classification of sports,
- training principles,
- characteristics of the training load,
- functional assessment,
- periodization,
- tapering.

Competencies

A. Knowledge and understanding:

the student will acquire knowledge and understanding of the fundamental principles of training and training load, the performance model and classification of sports, periodization and tapering.

B. Applying knowledge and understanding:

The student will be able to plan a sports training program by choosing the training load in relation to the functional assessment and the athlete's performance objective.

C. Making judgements:

The student will be able to evaluate individual's motor and sport abilities through tests.

D. Communication skills:

The student will have acquired an appropriate technical language that will allow to clearly express the technical knowledge internalized in the context of the topics proposed and analyzed.

E. Learning skills:

The student will be able to adequately use the knowledge acquired for the study, analysis and application of the updating elements for the planning and execution of basic sport training.

Syllabus

Subject 1 –Factors Predisposing Sports Performance: Elements of Mathematics and Physics, Biomechanics

1. Elements of mathematics
2. Elements of Physics
3. Elements of physics and biomechanical applications

Subject 2 –Predisposing factors for sports performance and classification of sports activities

1. Muscular-mechanical factors
2. Metabolic factors
3. Performance model and sports classification

Subject 3 – Principles of training

1. Definition of training
2. Workload and supercompensation
3. Basic principles of training
4. Long-term training process
5. Training Load

Subject 4 – Characteristics of training load for metabolic systems
1. Metabolic systems during exercise
2. Training zones for metabolic systems

Subject 5 – Characteristics of training load for strength conditioning
1. Muscle strength and sports.
2. Training zones for different type of strength

Subject 6 – Strength training
1. Practical applications

Subject 7 – Functional evaluation
1. Definition of athlete's functional assessment
2. Assessment tests: characteristics and criteria
3. Types of tests

Subject 8 – Test Batteries
1. Definition and examples of test batteries

Subject 9 – Periodization and tapering
1. Definition and examples of periodization
2. Tapering

Evaluation system and criteria

The examination consists of an oral examination or written test (30 multiple choice questions) up to 30 marks.
In addition, one e-tivity, consisting of practical exercise, is compulsory. The e-tivity counts up to 3 marks out of 30 marks.

Bibliography and resources

1. *Materials to consult*

Notes written by the instructor are available in Italian (part of the notes are also available in English).

2. *Recommended bibliography*

Suggested readings are:

- Bompa T., Buzzichelli CA. Periodization: Theory and Methodology of Training. Human Kinetics 2017
- Weineck J. L' Allenamento Ottimale (Calzetti e Mariucci, 2009).
- Verchoshanskij Y., La preparazione Fisica Speciale, Coni Scuola dello Sport, 2001