

Syllabus: Strength Training in Team Sports



SYLLABUS

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Objectives

By establishing objectives, we give ourselves a clear idea of what we want to achieve once the teaching and learning process of this course has finished. But our aims are even more specific: we also want to establish what you will need to accomplish in order for this new knowledge to contribute to your educational goals.

To achieve these objectives, you must complete the entire process laid out in the different stages of the course.

Thus, if you work in the way suggested, you will be well-positioned to meet the following objectives:

General objective:

Gain knowledge regarding strength development and strength training
in team sports

Specific objectives:

- 1 Gain in-depth knowledge regarding the fundamentals of strength development in team sports, taking the new paradigms into account.
- 2 Learn how to design a training program applicable to a sports season based on the proposed training methods.
- 3 Become familiar with the components of a strength training session.

Skills

The skills we hope you will develop throughout this course are:

General skills

- 1** Group and collaborative work: the ability to work with colleagues in order to accomplish shared goals and to achieve the synergy typical of a high performance group.
- 2** The capacity of analysis/reflection: the capacity to methodically examine the different aspects of a certain reality or situation and to carry out an assessment of that situation.
- 3** Creativity and innovative, knowledge-based solutions: the capacity to find alternative solutions to existing problems based on formal knowledge.

Specific skills

Ability to develop and analyze strength training programs for team sports

Bibliography

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Criteria for participation and approval

Participation criteria

During the month of course, the student is expected to:

- Browse the multimedia contents of each of the modules that make up the course.
- Solve the evaluations assigned in each module.
- Carry out the proposed activities, whether group or individual.
- Take the final exam.

Approval criteria

For the approval of the course, the student is required to complete the (4) proposed activities in the course and pass the final exam. The student must obtain a final score of 70% or more. This grade will be the average between the activities and the final exam.

Module 1: Introduction to Strength in Team Sports Our Paradigm

Unit 1: Basic Notions of Strength in Team Sports

1.1.1 Definitions of Concepts

1.1.2 Stretch-Shortening Cycle and the Speed of Strength Development

1.1.3 Physiological Aspects of Muscle Actions

1.1.4 Objectives of a Correct Training Program

Unit 2: The Role of Strength - from Theory to Practice

1.2.1 Strength Levels Characteristic of Team Sports

1.2.2 Analysis of Typical Muscle Actions in Team Sports

1.2.3 Starters vs. Substitutes Changes Throughout the Season

1.2.4 The Role of the Coach and Physical Trainer

Module 2: Periodization and Training Methods

Unit 1: The Training Process

2.1.1 Basic Concepts of Periodization

2.1.2 Linear vs. Undulating Periodization

2.1.3 Levels of Approximation (adapted from Seirulo, 1994)

2.1.4 Applied Example of Levels of Approximation (Basketball)

Unit 2: Training Methods

2.2.1 Machines vs. Free Weights

2.2.2 Weight Lifting-Derived Methods

2.2.3 Eccentric Work

2.2.4 Unstable Methods

Module 3: Programming a Session

Unit 1: Analysis of the Variables that Influence Session Programming

3.1.3 Choice and Order of Exercises

3.1.2 Volume

3.1.3 Intensity

3.1.4 Frequency and Rests

Unit 2: Training Monitoring

3.2.1 Technology Applied to Training Monitoring

3.2.2 What is the core? A Proposal for Training

3.2.3 Warm-Up and Post-Activation Potentiation

3.2.4 Fatigue and Recovery After a Session or Match

Module 4: Integrative Reading

Integrative reading