

	SUBJECT DESCRIPTION	MODELO PED.012.03
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Course	Sports					
Subject	Theory and Methodology of Training					
Academic year	2023-2024	Curricular year	2nd	Study period	1st semester	
Type of subject	Compulsory	Student workload (H)	Total: 162	Contact: 75	ECTS	6
Professor(s)	Faber Sérgio Bastos Martins; Teresa de Jesus Trindade Moreira da Costa e Fonseca					
<input checked="" type="checkbox"/> Area/Group Coordinator <input type="checkbox"/> Head of Department	(select)	Teresa de Jesus Trindade Moreira da Costa e Fonseca				

PLANNED SUBJECT DESCRIPTION

1. LEARNING OBJECTIVES

In this curricular unit students are required to: i) Interpretate and explain the multidisciplinary interface within sports science and sports training in particular; ii) Identify fundamentals of training load; iii) Relate training goals with performance; iv) Recognize principles of training in function of the biological response and intervention by means of exercise; v) Understand sport training factors as domains of primordial intervention of the coach in the training process; vi) Select and distribute over time training contents according to the factors involving practical domain; vii) Recognize the specificity of youth sport preparation and adequate training process accordingly.

2. PROGRAMME

- a. Sports training within sports sciences;
 - i. History and evolution of Sports Science;
 - ii. Definition
 - iii. Adjacent domains
 - iv. Classification of skills and sports
 - v. System and Sport Structures
- b. Training load
 - i. Volume
 - ii. Intensity
 - iii. Relation between volume and intensity
 - iv. Density
 - v. Complexity
 - vi. Relation between internal and external load

	SUBJECT DESCRIPTION	MODELO PED.012.03
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c. Objectives of Sports Training

- i. Main and universal goals
- ii. The path to performance
- iii. Methods of training:
- iv. Direct and indirect factors
- v. Variable, invariable factors

d. Principles of training

i. Biological

1. Overload
2. Specificity
3. Reversibility
4. Heterochrony

ii. Methodological principles

1. Optimal relation between exercise and rest
2. Determination of optimal exercise
3. Determination of optimal exercise for prescription
4. Continuity of the application of training exercise
5. Progressivity of training exercise
6. Ciclicity of training exercise
7. Individuality of training exercise
8. Diversity of stimulus

iii. Pedagogical principles

1. Conscious activity
2. Systematization
3. Activity

e. Training exercise

- i. Definition
- ii. Structural components
- iii. Representativity

f. Training factors: Physical Factor

- i. Resistance

	<h2>SUBJECT DESCRIPTION</h2>	MODELO PED.012.03
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1. Definition and classification of resistance
2. Factors affecting the Resistance
3. Methods and ways of development of resistance
4. Evaluation of the Resistance

ii. Force

1. Definition and classification Force
2. Factors affecting the Force
3. Methods and forms development Force
4. Evaluation of Force

iii. Flexibility

1. Definition and flexibility of classification
2. Factors affecting the flexibility
3. methods and ways of development of Flexibility
4. Flexibility assessment

iv. Velocity

1. Definition and velocity ratings
2. Factors affecting the velocity
3. Velocity Rating

g. Training factors: Technical Factor

- i. Sport technical concept
- ii. Objectives of technical training
- iii. The technique in different sports
- iv. Phases of the sports technical learning process

h. Training factors: Tactical Factor

- i. sporting tactics concept
- ii. Objectives of tactical training
- iii. Factors affecting the tactic
- iv. Stages of the learning process of sporting tactics
- v. Cognitive approach to decision making
- vi. Decision making and handling constraints
- vii. Representativeness of training tasks

	SUBJECT DESCRIPTION	MODELO PED.012.03
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- i) Training factors: Psychological Factor
 - i. psychological training concept
 - ii. Objectives of psychological training
 - iii. Factors affecting the psychological training
 - iv. training psychological methods
- j) Training planning
 - i. Definition
 - ii. Goals
 - iii. Levels
 - iv. Structure
 - v. Phases
 - vi. Periods
 - vii. Models
- k) Youth sports training
 - i. Coach, parents, athlete
 - ii. Methodological principles
 - iii. Phases of athletic development
 - iv. Adequation between maturity status and chronological age

3. COHERENCE BETWEEN PROGRAMME AND OBJECTIVES

- (i) Interpretate and explain the multidisciplinary interface within sports science and sports training in particular; refers to:
 - a) Sports training within sports sciences domain;
- (ii) Identify fundamentals of training load refers to:
 - b) Training load;
- (iii) Relate training goals with performance refers to:
 - c) Objectives of Sports Training
- (iv) Recognize principles of training in function of the biological response and intervention by means of exercise refers to:
 - d) Principles of training
 - e) Training exercise

	SUBJECT DESCRIPTION	MODELO PED.012.03
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(v) Understand sport training factors as domains of primordial intervention of the coach in the training process refers to:

f), g), h), i) Training factors

(vi) Select and distribute over time training contents according to the factors involving practical domain refers to:

j) Training planning;

(vii) Recognize the specificity of youth sport preparation and adequate training process accordingly refers to:

k) Youth sports training.

4. MAIN BIBLIOGRAPHY

4.1. Main bibliography

Arese, A. (2012). Manual de Entrenamiento Deportivo. 1ª Ed. Editorial Paidotribo.

Bompa, T. (2009). Entrenamiento de equipos deportivos. Editorial Paidotribo.

Bompa, T. (2007). Periodización del Entrenamiento Deportivo. 2ª Ed. Editorial Paidotribo

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De La Rosa, A. (2007). Treinamento desportivo: do ortodoxo ao contemporâneo. Editora Phorte.

Dominguez, P. & Dominguez, I. (2022). Teoria y practica del entrenamiento funcional de alta intensidad. Editorial Murillo Saif.

Gomes, A. (2009). Treinamento Desportivo – Estruturação e Periodização. 2ª Ed. Editora Artmed

Hohmann, A., Letzelter, M. & Lames, M. (2005). Introduccion a La Ciencia Del entrenamiento. 1ª Ed. Editorial Paidotribo.

Matveiev, L. (2001). Teoría general del entrenamiento deportivo. Editorial Paidotribo.

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Verdugo-Garcia, M. (2018). Entrenamieno de Resistencia – Basado en zonas o áreas funcionales. Editorial Paidotribo.

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Weineck, J. (2002). Manual do Treino Ótimo. Edições Piaget.

4.2. Secondary bibliography

Araújo, D. (2005). *O contexto da decisão: A ação tática no desporto*. Visão e Contextos.

Barrero, A. & Lazarraga, P. (2019). Nuevas tendencias en entrenamiento y planificacion de los deportes colectivos. Ed. Wanceulen.

	SUBJECT DESCRIPTION	MODELO PED.012.03
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Castelo, J. (1996). Metodologia do Treino Desportivo. Edições FMH.

Clemente, F. (Coordenação). (2023). Treinar para render. Guia completo de metodologia do treino. Editor: Prime Books.

De La Rosa, A. (2001). Treinamento desportivo: Carga, estrutura e planeamento. Editora Phorte.

Lacambra, M. (2015). El deporte en la infancia-Ensenar, entrenar, y competir sin dejar de aprender, educar y disfrutar. Editorial INDE.

Matveiev, L. (2001). *Teoría general del entrenamiento deportivo*. Paidotribo

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Seirul-lo Vargas, F. (2017). Entrenamiento en los deportes de equipo. Ed. Mastercede.

Teodorescu, L. (2003). Problemas de teoria e metodologia nos jogos desportivos. Livros Horizonte.

Weineck, J. (2005). Entrenamiento Total. Primera Edición. Editorial Paidotribo.

5. TEACHING METHODOLOGIES (INCLUDING EVALUATION)

Teaching methodologies of this curricular unit are supported on knowledge appropriation in both theoretical and theoretical-practical sessions. In the first case, (1) expositive classes, bibliographic research, discussion of research papers, seminars, reading forms, portfolio, discussions sessions and oral presentations are considered. In the second case, (2) experimental sessions, group-work, problem solving situations and case studies are considered. By this means, the student may access theoretically-based information along its proper mode of transfer to practical settings. Evaluation method of the curricular unit will be based on a continuum, including three components: (i) group-work and (iii) two written tests. Each of these components is valued with a relative weight of 40 % and 30% and 30%. Exam evaluation is considered throughout a written test.

6. COHERENCE BETWEEN TEACHING METHODOLOGIES AND OBJECTIVES

i) Interpretate and explain the multidisciplinary interface within sports science and sports training in particular; ii) Identify fundamentals of training load; iii) Relate training goals with performance; iv) Recognize principles of training in function of the biological response and intervention by means of exercise; v) Understand sport training factors as domains of primordial intervention of the coach in the

	SUBJECT DESCRIPTION	MODELO PED.012.03
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training process; vi) Select and distribute over time training contents according to the factors involving practical domain; vii) Recognize the specificity of youth sport preparation and adequate training process accordingly refer to the following teaching methodologies:

1) Expositive classes, bibliographic research, discussion of research papers, seminars, reading forms, discussions sessions and oral presentations;

iii) Select the means, methods and training load in line with the requirements of different practice environments; iv) Design training exercises which allow for the optimization of training factors and v)

Conceive different approaches to the training factors; refers to the following teaching methodologies:

(2) Experimental sessions, group-work, problem solving situations and case studies.

7. ATTENDANCE

To be assessed under the continuous assessment system, students must: i) fulfill all evaluation criteria; ii) maintain a mandatory minimum attendance of 54% during theoretical and practical contact hours.

Comments:

- The classes will be taught in portuguese language.
- For the evaluation of students with Worker Statute-student not only will be considered the evaluation regulation of ESECD as it is also considered to Law No. 116/97 and Article No. 22 of Law No. 62/2007 of 10 September - Legal Regime Institutions of higher education.
- It is forbidden to use any platform mobile telecommunications in all lessons and assessments, except in exceptional cases with prior approval of the teacher.

8. CONTACTS AND OFFICE HOURS

Teresa Fonseca, Ph.D.		Faber Martins, Ph.D.		
Monday	Wednesday	Monday	Tuesday	Wednesday
12h30-13h30	11h00-13h00	17h00-19h00	15h30-16h30	09h00-11h00
E-mail: tfonseca@ipg.pt	Gabinete nº 1.9	E-mail: fabermartins@ipg.pt	Gabinete nº 1.8	

DATE

19 de setembro de 2023

	<h1>SUBJECT DESCRIPTION</h1>	<p>MODELO PED.012.03</p>
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SIGNATURES

Area Coordinator

(signature)

Professor

(signature)

Professor

(signature)