

Table S1. Academic subjects involved in the educational innovation program and the division into topics and subtopics for each one.

Academic subject	Topics	Subtopics
Psychological aspects of sport	1. Psychological factors and their influence on sports injuries	<p>A. THEORETICAL MODELS THAT RELATE PSYCHOLOGICAL FACTORS TO THE OCCURRENCE OF SPORTS INJURIES.</p> <ul style="list-style-type: none"> - Name of the model, with its bibliographical citation. - Why did the need arise to create this model? <ul style="list-style-type: none"> - What characterizes it? - Graphically represent the model <p>B. STRESS AND INJURY.</p> <ul style="list-style-type: none"> - Definition of stress, types of stress and description of the stress process in the context of sport. - Potentially stressful situations: name and give examples of the main ones in competitive sport. <ul style="list-style-type: none"> - Stress responses: anxiety, depression and alertness. - Main consequences of the stress response that seem to increase vulnerability to sport injuries <p>C. VULNERABLE vs. RESISTANT SPORTSPEOPLE.</p> <ul style="list-style-type: none"> - List the personal variables that may increase or decrease the stressful potential of the situation in the sport context and specify their effect on the stressful potential of the situation. <ul style="list-style-type: none"> - Describe with theoretical foundations, the profile of resistance to injury. - Explain what the psychological key is to prevent sports injury from the professional figure of the coach or physical trainer and according to the scientific literature <p>D. PSYCHOLOGICAL INTERVENTION PROGRAMMES TO PREVENT SPORTS INJURIES.</p> <ul style="list-style-type: none"> - According to the scientific evidence, the psychological work of the sports person can help to prevent sports injuries. - Provide between three and five scientific articles from the last 10 years congruent with this idea and explain what results were found. - Describe a real or imaginary case where the relationship between stress and sports injury is evidenced. <ul style="list-style-type: none"> - What psychological and situational variables are affected? How would you evaluate them? - What psychological strategies or techniques would you apply and how? Describe a psychological exercise to integrate into the training track that can be used to prevent sports injuries)
	2. Psychological factors and recovery from sports injuries	<p>A. EXPLANATORY MODELS OF THE RELATIONSHIP BETWEEN INJURIES AND PSYCHOLOGY.</p> <ul style="list-style-type: none"> - Name the model with its bibliographical citation. - Why did the need arise to create such a model? <ul style="list-style-type: none"> - What characterizes it? - Graphically represent the model. <p>B. INJURY AND STRESS.</p> <ul style="list-style-type: none"> - Basic psychological dimensions (the psychological response during the sports injury recovery process): <ul style="list-style-type: none"> • Cognitive: irrational thoughts (detect and eliminate). • Emotional: unconscious and automatic affect (anger, fear, guilt, etc.). • Psychophysiological: consequence of psychological processing. <ul style="list-style-type: none"> • Behavioral or motor: adherence/avoidance. • Social: social and cultural context. <p>C. PSYCHOLOGICAL INTERVENTION PROGRAMMES TO RECOVER FROM SPORTS INJURIES</p> <ul style="list-style-type: none"> - According to scientific evidence, psychological work on athletes can help them to recover from sports injuries. - Provide between three and five scientific articles from the last 10 years congruent with this idea and explain what results they found. - Psychological phases and strategies in the recovery of sports injuries. Psychosocial factors related to indicators of sports injury recovery in competitive athletes. - Psychological strategies in sports injury recovery. Cite, describe and give examples of practical exercises for the injured athlete. <p>D. RECOVERY FROM SPORTS INJURY: CASE STUDY.</p> <ul style="list-style-type: none"> - Find specific information on the case of a seriously injured athlete (more than 6 months off work) and analyze the following aspects: <ul style="list-style-type: none"> • Behavior: how he/she deals with the injury, how he/she behaves. • Background: situational characteristics of the athlete (competition level, sporting performance, sporting projection, type of injury, state, prognosis, etc.). <ul style="list-style-type: none"> • Consequences: what has this injury meant for the athlete and for his/her environment. • Stable characteristics: personal variables of the athlete, what is this athlete normally like? <ul style="list-style-type: none"> • Specify what you would do to favor the recovery of this athlete).
3. Psychological aspects associated with the return to play and the	A. RETURN TO PLAY (RTP) WHAT CHARACTERIZES IT?	<ul style="list-style-type: none"> - Definition of RTP. - Criteria for deciding the RTP. - Role of coping skills before the RTP. - Psychological issues in the RTP.

sporting withdrawal (post-injury)	<ul style="list-style-type: none"> - Fear of relapse, how does it influence it. B. RETURN TO PLAY (RTP) AND ASSOCIATED PSYCHOLOGICAL ASPECTS. <ul style="list-style-type: none"> - What psychological aspects are predictors of a successful RTP and why? <ul style="list-style-type: none"> - Role of mental preparation before, during and after injury. <ul style="list-style-type: none"> - "No pain, no gain", is it safe? - Role of social support for the injured athlete. How can we, as coaches, from a psychosocial perspective favor a full RTP. C. INJURY AND SPORTING WITHDRAWAL. <ul style="list-style-type: none"> - What does sporting withdrawal entail? - Are all retirements the same? What makes the difference? What does a greater or lesser impact of this experience depend on? Facilitating aspects and difficulties. - Equate the process of sporting withdrawal with mourning (Kubler-Ros Model, 1969). Exemplify each emotional stage with one or two sentences of the athlete. - How the withdrawal is related to the injury; X-ray of a sports injury that ends in withdrawal (cite specific cases). D. WHAT HAPPENS AFTER SPORT? PSYCHOLOGICAL ANALYSIS OF SPORTING WITHDRAWAL. <ul style="list-style-type: none"> - Look for specific information on the case of an athlete who has had to retire from sport as a result of an injury and analyze the following aspects: <ul style="list-style-type: none"> • What has led the athlete to retire? Causes. • Stable characteristics: personal variables of the athlete, what is the athlete normally like? <ul style="list-style-type: none"> • What aspects hinder the process of adaptation? • What aspects facilitate the process of adaptation? • What strategies can be carried out to deal adequately with the withdrawal?
Kinanthropometry	<ol style="list-style-type: none"> 1. Body composition <ol style="list-style-type: none"> A. BODY COMPOSITION ASSESSMENT SYSTEMS. <ul style="list-style-type: none"> - Explain the different models of body composition assessment and their differences. - Explain the methods for the estimation of body composition within the tissue assessment model, differentiating between direct, indirect and double indirect methods. - Carry out a critical analysis on the advantages and disadvantages of these methods, based on scientific evidence. B. BODY FRACTIONATION IN COMPONENTS. <ul style="list-style-type: none"> - Define the general outlines of what the 2-, 3-, 4- and 5-component models consist of. - Explain which of the above models are used with each of the most classically performed methods for estimating body composition. <ul style="list-style-type: none"> - Analyze how these component models are used in kinanthropometry. - Carry out a critical analysis of the findings found in this sub-theme. C. FAT ESTIMATION WITH KINANTHROPOMETRY. <ul style="list-style-type: none"> - Seek information on the equations for fat component estimation most commonly used in kinanthropometry, the population in which they were validated and the population in which they are commonly used. - Measure an individual and calculate their fat percentage using the different formulas. Make critically reflect on the results found. - Research the classically used tables of ideal fat percentages for each sport, and critically reflect on their applicability. - Alternatives to the deficits found in the estimation of fat mass with kinanthropometry: profile and fold summation and their use in science. D. THE ESTIMATION OF MUSCLE AND BONE WITH KINANTHROPOMETRY. <ul style="list-style-type: none"> - Find information on the equations for the estimation of the muscle component most commonly used in kinanthropometry, the population in which they were validated and the population in which they are usually used. - Find information on the equations for the estimation of the bone component most commonly used in kinanthropometry, the population in which they were validated and the population in which they are usually used. - Measure an individual and calculate their muscle and bone percentage with the different formulas. Make a critical reflection on the results found. - What is the muscle/skeletal index? What is its use? Based on the findings of the previous sections of this sub-theme, what could be its main limitation?). 2. Somatotype <ol style="list-style-type: none"> A. CONCEPTUAL APPROACH. <ul style="list-style-type: none"> - What is the somatotype? Reference. - In which components is the somatotype represented? What does each one refer to? - What advantages does the somatotype have over other areas of application such as body composition? <ul style="list-style-type: none"> - How is the somatotype classified? Is there only one classification? - Find information in scientific articles about the somatotype of different athletes and compare them. Analyze the different options for the use of somatotype in its applicability to sport. B. METHODS OF OBTAINING SOMATOTYPE. <ul style="list-style-type: none"> - What are the methods for obtaining the somatotype? Indicate their general characteristics, advantages and disadvantages. <ul style="list-style-type: none"> - Which is the most used method to obtain the somatotype at present?

- Investigate the formulas used to calculate the different components of the somatotype with kinanthropometry. Analyze how the final result is influenced by whether each of the variables included in the formulas has a higher or lower value.
- C. CORRECTED GIRTHS AND SOMATOCHART.
- What are corrected girths and cross-sectional areas? What is their relationship with the somatotype?
 - What is the somatochart? Explain its main characteristics.
 - Where would each of the somatotype classifications be represented in the somatochart?
- Place a point on the somatochart and five different evolutions of it. Explain what each of these changes could be due to, covering all the possibilities.
- D. SOMATOTYPE ANALYSIS.
- Explain the different possibilities of somatotype analysis that exist based on the X and Y coordinates of the somatotype chart or on the component analysis. Define the main characteristics of each of the analyses found and when they could be applied.
- Investigate the use of this type of analysis in the scientific literature. Give some examples of their use.
- Critically reflect on their applicability in the daily work of the graduate in Physical Activity and Sport Sciences.

3. Proportionality

A. CONCEPTUAL APPROACH AND ANTHROPOMETRIC INDICES.

- What is proportionality? Include the reference/s.
- Explain what anthropometric indices are and their classification. Indicate all the different relative measures, ratios and weighted indices that you can find, indicating their formula, which variables they relate, if there is homogeneity in their measurement and their evolution with that of the variables on which they depend.
- Indicate which are the most classically used anthropometric indices, analyzing their advantages and disadvantages.

B. THE PHANTOM METHOD.

- What is the Phantom method? Define it and explain its main characteristics.
- How is a variable adjusted for height? Give three practical examples of its application.
- How is the Z-index of a variable calculated and how is its result interpreted?
- Give at least three examples of the use of Z-indexes in scientific articles and their interpretation.

C. APPLICABILITY TO HEALTH.

- Research, on the basis of scientific articles, the use of body indices and Z-indices in the field of health, both for the detection and monitoring of diseases. Indicate which indices have been most commonly used for each of the major diseases, their advantages and disadvantages.
- Based on the findings of the previous part, reflect on the applicability of this in your professional practice.

D. APPLICABILITY IN SPORT PERFORMANCE.

- Research, based on scientific articles, the use of body indices and Z indices in the field of sport performance, focusing on the detection and monitoring of sport talents, growing athletes, high level sport. Indicate which indices have been used more in each of the sports/positions, their advantages and disadvantages.
- Based on the findings of the previous section, reflect on the applicability of this in your professional practice).

A. DEFINITION AND CLASSIFICATION.

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| Special Needs Groups, Disability and Sport | 1. Physical and functional disability | - | Definition of disability according to different organizations and classification of disability (at least two different classifications). |
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B. GENERAL AND CHILD/ADOLESCENT CHARACTERISTICS.

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| 2. Sensory disability (of sight and hearing) | - | Indicate at least three athletes who have this disability, indicate which sport they practice and in which classification they are found. |
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| 3. Intellectual disability | - | Then indicate the particular characteristics of the hypothetical child (age, cognitive, physical, functional, social skills, integration in the classroom, etc.) |
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C. GENERAL APPROACH TO PHYSICAL EDUCATION CLASSES.

- General methodological guidelines for children and adolescents with disabilities.
- Important Physical Education Objectives and Contents to be developed in the population with this disability.
- Subsequently, the selection of a maximum of three specific objectives and contents to be developed in this session and justification of the selection of this content

D. PHYSICAL EDUCATION SESSIONS.

- Development of a Physical Education session in which a child with this disability is present, taking into account the age, characteristics, objectives, contents, etc. described in the previous sections: course; divide into warm-up, main part and cool-down; describe each exercise, activity or game; include a graphic representation if necessary (include your own photographs to be evaluated); objective of each activity; time, organization, equipment, space, groupings, etc. of each activity; specific adaptation to each activity for the child with disability; and other aspects considered important.