Course Unit	Evaluation and Prescription of Exercise					Field of study	Sport Sciences								
Bachelor in	Sports - Minor in Sports Management					School	School of Education								
Academic Year	2023/2024		Year of study	3		Level	1-3		ECTS credits	4.0					
Type	Semestral		Semester	1		Code	9563-624-3101-00-23								
Workload (hours)	108	Contact hours	T	30	TP -	PL	15	TC -	S -	E -	OT -	O -			

T - Lectures; TP - Lectures and problem-solving; PL - Problem-solving, project or laboratory; TC - Fieldwork; S - Seminar; E - Placement; OT - Tutorial; O - Other

Name(s) of lecturer(s): Antonio Manuel Malvas Reis

Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:
To know the assessment methods and to design physical exercises programs to improve cardiorespiratory and muscular fitness and body composition.

Prerequisites

Before the course unit the learner is expected to be able to:
Knowledge about exercise physiology and statistics

Course contents

Assessing habitual physical activity. Assessing cardiorespiratory fitness, designing cardiorespiratory exercise programs Assessing muscular strength and endurance, designing muscular fitness programs. Assessing body compositions and designing weight control programs

Course contents (extended version)

1. Measurement and evaluation
   - Tests characteristics
   - Measurement error
   - Reliability, Validity and objectivity
2. Habitual Physical activity and health Physical
   - Measurement unities and energy expenditure
   - Habitual physical activity assessment
   - Energy expenditure assessment
3. Body composition assessment and body weight control
   - Models and methods body composition assessment
   - Exercise effects on body composition
   - Design of exercise programs for weight control
4. Physical fitness
   - Physical fitness health related
   - Physical fitness test batteries
   - Normative and criterion evaluation
5. Cardiorespiratory fitness
   - Assessing Cardiorespiratory fitness
   - Design od exercise programs for cadiorespiratory fitness development
6. Assessing muscular strength and endurance
   - Assessment of strength and resistance
   - Assessment of flexibility
   - Design of exercise programs for strength and resistance
   - Design of exercise programs for flexibility
7. Postura
   - Physical exercise for low back pain

Recommended reading

1. Heyward, V. ; Gibson, A. (2014). Advanced fitness assessment and exercise prescription. 7ª ed. Campaign: Human Kinetics
2. American College of Sport Medicine (2013). ACSM's Guidelines for Exercise Testing and Prescription. 9ª ed. Filadelfia: Lea & Febiger.
3. Eston, R. , Eston, R. G. , & Reilly, T. (2009). Kinanthropometry and Exercise Physiology Laboratory Manual: Anthropometry. Londres: Routledge.
4. Nieman, D. C. (2003). Exercise testing and prescription. A health-related approach. 5 ed. Nova Iorque: McGraw-Hill Higher Education.
5. Heyward, V. H. ; Wagner, D. R. (2004). Applied body composition assessment. 2 ed. Champaign: Human Kinetics.

Teaching and learning methods

Sessions of presentation and discussion of the topics Practical work

Assessment methods

1. Continue evaluation - (Regular, Student Worker) (Final)
   - Intermediate Written Test - 60% (2 Tests (50% each))
   - Practical Work - 40% (1 group work (3 elements))
2. Final exam - (Regular, Student Worker) (Supplementary, Special)
   - Final Written Exam - 100%

Language of instruction

Portuguese

Electronic validation

Antonio Manuel Malvas Reis	Pedro Miguel Monteiro Rodrigues	Pedro Miguel Queirós Pimenta Magalhaes	Carlos Manuel Costa Teixeira
18-02-2024	25-02-2024	26-02-2024	27-02-2024