

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
Type	Semestral	Semester	1
Workload (hours)	108	Contact hours	T 30 TP - PL 15 TC - S - E - OT - O -
		Level	1-3 ECTS credits 4.0
		Code	9563-624-3101-00-23

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 cardiorespiratory 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 lorque: 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