Course Unit	Motor Learning and Control		Field of study	Sport Sciences	
Bachelor in	Sports - Minor in Recreation and Leisure		School	School of Education	
Academic Year	2023/2024	Year of study	1	Level	1-1	ECTS credits	5.0
Type	Semestral	Semester	1	Code	9563-625-1102-00-23	

Workload (hours)	135	Contact hours	T	-	TP	45	PL	-	TC	-	S	-	E	-	OT	9	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)	Catarina Margarida Silva Vasques

Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:
1. Evaluate the performance of the motor learning by identifying the proper methods to assess motor performance and to infer on performance curves.
2. Apply properly methods of research to solve problems on motor learning by selecting the proper experimental procedures and manipulating correctly motor learning variables.
3. Reveal a solid background on motor learning and control by writing and exposing reports on theoretical concepts explored either in laboratory or in the teaching-learning process contexts.
4. Identify and explain variables that affect the learning and motor performance through application of motor learning concepts in the construction of the learning process.

Prerequisites

Before the course unit the learner is expected to be able to:
Basic knowledge on neurophysiology.

Course contents

1. Introduction to motor performance and learning 2. Principles of Human motor control 3. Principles of motor Skill Learning 4. Preparation of the motor learning experience 5. Factors of learning.

Course contents (extended version)

1. Introduction to motor performance and learning
    - Concepts and fundamental terminology;
    - Tasks, skills and motor capabilities;
    - Systems of classifying motor skills;
    - Motor skills and motor performance;
    - Evaluation of motor performance;
2. Elements of Human motor control
    - Neural basis of the human motor control;
    - Motor Control Theories;
    - Performance and motor controlo characteristics of functional skills;
    - Motor action preparation and performance;
    - Attention and memory.
3. Elements of Motor Learning
    - Assessing learning progress;
    - Stages of learning;
    - Transfer of learning.
4. Preparation of motor learning experiences
    - Demonstration and instruction;
    - Augmented feedback;
    - Practice variability and specificity;
    - The amount and distribuition of practice.
5. Factors of motor learning

Recommended reading

1. Magill, R. (2004). Motor learning and control: concepts and applications, McGraw-Hill. Boston.
2. Shumway-cook, A. , Woollacott, M. (2011). Motor control: theory and practical applications. 4nd ed. Baltimore, williams & wilkins.
3. Passos, P. (2013). Comportamento Motor, controlo e aprendizagem. Lisboa: UTL-FMH.
4. Schmidt, R. A. (2011). Motor control and learning: a behavioral emphasis. Champaign, Ill. Human Kinetics.
5. Godinho, M. , Mendes, R. , Melo, F. , & Barreiros, J. (2005). Controlo motor e aprendizagem: Trabalhos práticos. 2ª Edição. Lisboa: UTL-FMH.

Teaching and learning methods

Oral exposure and through digital media. Labor research, analysis and interpretation of text / scientific articles. Preparation of reports on laboratory activities and on construction of the learning contexts.

Assessment methods

1. Continuous evalutation - (Regular, Student Worker) (Final)
    - Intermediate Written Test - 70% (2 written tests - 35%+35%)
    - Practical Work - 30% (Pratic work - 4 worksheets + 1 group work (6%+24%=30%))
2. Evaluation by exam - (Regular, Student Worker) (Supplementary, Special)
    - Final Written Exam - 100% (1 written test)

Language of instruction

Portuguese

Electronic validation

Catarina Margarida Silva Vasques	Pedro Miguel Monteiro Rodrigues	Pedro Miguel Queirós Pimenta Magalhaes	Carlos Manuel Costa Teixeira
04-01-2024	25-02-2024	26-02-2024	27-02-2024