

Course Unit	-	Field of study	-
Master in	Teaching of the First Cycle, Mathematics and Natural Sciences in the Second Cycle	School	School of Education
Academic Year	2023/2024	Year of study	1
Type	Semestral	Semester	1
Level	2-1	ECTS credits	4.0
Code	5044-763-1101-00-23		
Workload (hours)	108	Contact hours	T - , TP 28, PL - , TC - , S - , E - , OT 8, 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) Maria Conceição Costa Martins, Nuno Miguel Franco Paula Santos

Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:

1. Understand that the diversity of living beings reflects the existence of countless differences, but also many similarities between them.
2. Understand the concept of species and its importance in systematics.
3. Discuss different theories concerning the origin of living beings and the evolution of species.
4. Distinguish the main taxonomic groups in which living beings are grouped.
5. Understand the importance of earth biodiversity.
6. Recognize the main threat factors to biodiversity.
7. Identify the most relevant biodiversity groups and species in Portugal.

Prerequisites

Before the course unit the learner is expected to be able to:
No prerequisites

Course contents

1-Diversity and unity of Life. 2-Study of the major taxonomic groups. 3-Biodiversity and nature conservation

Course contents (extended version)

1. Diversity and unity of Life
 - Classification of living organisms
 - Origin and evolution of living beings
 - Classical theories about the evolution of species and Evolutionism
2. Study of the major taxonomic groups
 - Monera, Protista and Fungi Kingdom
 - Plant and Animalia Kingdom
 - Diversity and ecological relevance of Traqueophytes.
 - Diversity and ecological relevance of Chordates.
3. Biodiversity and nature conservation
 - Biodiversity in Portugal
 - Biodiversity conservation relevance
 - Threats to biodiversity
 - Institutions and instruments for biodiversity protection

Recommended reading

1. Bencatel, J. , Álvares, F. , Moura, A. E. . & Barbosa, A. M. (eds.) (2017). Atlas de mamíferos de Portugal. Universidade de Évora.
2. Eiras, J. (2010). Charles Darwin (1809/2009). Evolução e biodiversidade. Editora da Universidade do Porto.
3. Figueiró, A. (2015). Biogeografia: dinâmicas e transformações da natureza. Editor Oficina de Textos.
4. Secretariado da Convenção sobre Diversidade Biológica (2014). Panorama da biodiversidade global 4. Montréal: CDB. www. cbd. int/GB04.
5. Sociedade Portuguesa de Botânica (2014). Flora-On: Flora de Portugal interactiva. SPBotânica. www. flora-on. pt.

Teaching and learning methods

The course has a strong reflective, interactive and practical component. Some classes will have a theoretical nature, in which the content is presented by the teacher, but there will also be theoretical-practical classes with debates and discussion of current topics on the study and preservation of Biodiversity. In practical activities, laboratory techniques and field observations will be used.

Assessment methods

1. Continuous assessment - (Regular, Student Worker) (Final)
 - Intermediate Written Test - 70% (Evaluation of the theoretical component will be done through one written test)
 - Laboratory Work - 30% (Written reports on practical lessons)
2. Exam - (Regular, Student Worker) (Supplementary, Special)
 - Final Written Exam - 70% (Concerns only the theoretical component and will be run through a final written Exam)
 - Practical Work - 30% (Corresponding to the assessment of the practical component obtained by frequency)

Language of instruction

Portuguese, with additional English support for foreign students.

Electronic validation

Maria Conceição Costa Martins, Nuno Miguel Franco Paula Santos	Paulo Miguel Mafra Gonçalves	Manuel Celestino Vara Pires	Carlos Manuel Costa Teixeira
22-02-2024	22-02-2024	25-02-2024	25-02-2024