25252 - Zoology

Información del Plan Docente

Academic Year	2017/18
Faculty / School	201 - Escuela Politécnica Superior
Degree	277 - Degree in Environmental Sciences 571 - Degree in Environmental Sciences
ECTS	6.0
Year	1
Semester	Second Four-month period
Subject Type	Basic Education, Optional
Module	---

1.General information

1.1.Introduction

1.2.Recommendations to take this course

1.3.Context and importance of this course in the degree

1.4.Activities and key dates

2.Learning goals

2.1.Learning goals

2.2.Importance of learning goals

3.Aims of the course and competences

3.1.Aims of the course

3.2.Competences

4.Assessment (1st and 2nd call)

4.1.Assessment tasks (description of tasks, marking system and assessment criteria)

5.Methodology, learning tasks, syllabus and resources

5.1.Methodological overview

The learning of the subject is based on the following:

1. The theory lectures will consist in: participative theory lectures; videos; scientific articles discussion; discussion on

some aspects of the subject and a specific seminar on Iberian sea invertebrates. Lectures will be in Spanish and scientific and part tof the references in English.

2. The practice lectures will have two parts. The first will be the elaboration of a collective report done by groups of three of four students on a given aspect of an Iberian species. The second will be dedicated to the learning in the identification of species in the field and in the lab. For this purpose magnifying glasses, microscopes, guides and collections will be used.

5.2.Learning tasks

The program offered to the students to help them achieve the expected results, comprise the following activities:

On-site lectures

1. Theory lectures. 30 h. Teacher's presentations will be available on Moodle platform.
2. Lab practices. 14 h.
3. Field work. 10 h.
4. On-site evaluation. 6 h.

Non-classroom work

5. Collective work. 30 horas.
6. Study. 60 h.

Total: 150 h.

5.3.Syllabus

Theory program

Chapter 1. Taxonomy and zoological nomenclature.

Chapter 2. Scientific and technical writing.

Chapter 3. Non Arthropoda invertebrates. Porifera, Cnidarians, Anelida, Mollusca, Chelicerate, Crustacea, Miriapoda and others.

Chapter 4. Arthropoda. Chelicerate, Crustacea and others; Hexapod (Insects).

Chapter 5. Systematics and Evolution of Vertebrates. Sub-disciplines.

Chapter 6. Iberian Fauna.

25252 - Zoology

Chapter 7. Study methodology and inventories. Estimation of abundance. Ethology. Capture and marking. Foods, Habitat Use. Management and Conservation.

Chapter 8. Relation with Man. Domestication, damages, impact, culture, use.

Practice program

Practice 1. Aquatic and soil Invertebrates: extraction, observation and taxa determination.

Practice 2 and 3: Extraction, observation and determination of taxa.

Practice 4. Fishes.

Practice 5. Amphibians and reptiles.

Practice 6. Birds.

Practice 7. Mammals.

Practice 8. Field work.

5.4.Course planning and calendar

Calendar of on-site lectures and report presentations

Calendar, timetable, tutorials and exams will be adjusted to the general academic calendar of Saragossa University and its Technical School.

The information on the subject will be available on Moodle platform from the beginning of the term.

Week 1. Subject presentation.

Week 2. Chapters 1 and 2.

Week 3. Chapter 3.

Week 4. Chapter 3.

25252 - Zoology

Week 5. Chapter 3.

Week 6. Chapter 4.

Week 7. Chapter 4.

Week 8. Chapter 5.

Week 9. Chapter 5.

Week 10. Chapter 5.

Week 11. Chapter 5.

Week 12. Chapter 6.

Week 13. Chapter 7.

Week 14. Chapter 8

5.5.Bibliography and recommended resources

BB	Brusca, Richard C.. Invertebrates / Richard C. Brusca, Wendy Moore, Stephen M. Shuster ; illustrations by Nancy Haver . 3rd. ed. Sunderland (Massachusetts) : Sinauer Associates, cop.2016
BB	Código internacional de nomenclatura zoológica / Comisión Internacional de Nomenclatura Zoológica ; [traducción de la versión española, M.A. Alonso-Zarazaga] . 4a. ed. adoptada por la Unión Internacional de Ciencias Biológicas Madrid : The International Trust for Zoological Nomenclature [etc.], 2000
BB	Diaz, José A.. Zoología : aproximación evolutiva a la diversidad y organización de los animales / José A. Díaz, Tomás Santos. Madrid : Síntesis, D.L. 1998
BB	Meglistsch, P.A. (1986). Zoología de los invertebrados. Editorial Pirámide. AGOTADO
BB	Nores Quesada, C. (2013). Manual para la gestión de poblaciones de mamíferos. Instituto de Recursos Naturales y Ordenación del Territorio, Universidad de Oviedo

25252 - Zoology

BB	Principios integrales de zoología / Cleveland P. Hickman, Jr. ... [et al.] . [ed. en español, traducida de la 13ª ed. en inglés de la obra / Jesús Benito Salido... [et al] Madrid [etc.] : McGraw-Hill Interamericana, D. L. 2006
BC	Margulis, Lynn. Cinco reinos : guía ilustrada de los phyla de la vida en la Tierra / Lynn Margulis, Karlene V. Schwartz ; [traducción de Ana Avila] . 1a ed. Barcelona : Labor, 1985

LISTADO DE URLs:

Base datos Animales
[http://www.animalbase.org/]
Bioimágenes
[http://bioimagen.bioucm.es/]
Enciclopedia virtual de los vertebrados ibéricos
[http://vertebradosibericos.org/]
Fauna europea
[http://www.fauna-eu.org/]
Fauna ibérica
[http://www.fauna-iberica.mncn.csic.es/]
GBIF, Global Biodiversity Information Facility
[http://www.gbif.org/]
Revista Reduca
[http://revistareduca.es/]
Species 2000
[http://www.sp2000.org/]
UICN, Unión Internacional para la Conservación de la Naturaleza
[https://www.iucn.org/]
World Biodiversity Database
[http://www.nhbs.com/series/37533/world-biodiversity-database]

The updated recommended bibliography can be consulted in:
http://psfunizar7.unizar.es/br13/egAsignaturas.php?id=10995