

Academic Year/course: 2022/23

25252 - Zoology

Syllabus Information

Academic Year: 2022/23

Subject: 25252 - Zoology

Faculty / School: 201 - Escuela Politécnica Superior

Degree: 571 - Degree in Environmental Sciences

ECTS: 6.0

Year: 1

Semester: Second Four-month period

Subject Type: Basic Education

Module:

1. General information

2. Learning goals

3. Assessment (1st and 2nd call)

4. Methodology, learning tasks, syllabus and resources

4.1. Methodological overview

The methodology followed in this course is oriented towards the achievement of the learning objectives. A wide range of teaching and learning tasks are implemented, such as lectures, laboratory sessions, fieldwork, assessment tasks, group work and autonomous work and study.

4.2. Learning tasks

This 6 ECTS (150 hours) course is organized as follows:

Face-to-face activities:

- **Lectures** (30 hours). Lectures will consist in: participative theory lectures, videos, scientific articles discussion and discussion on some aspects of the subject and a specific seminar on Iberian sea invertebrates. Lectures will be in Spanish and scientific and part of the references in English. Teacher's presentations will be available on Moodle platform.
- **Lab sessions** (14 hours). Will have two parts. The first will be the elaboration of a collective report done by groups of three or 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.
- **Fieldwork** (10 hours).
- **Exam** (6 hours).

Non face-to-face activities:

- **Group work** (30 hours).
- **Autonomous work and study** (60 hours).

4.3. Syllabus

This course will address the following topics:

Lectures

- Topic 1. Taxonomy and zoological nomenclature.
- Topic 2. Scientific and technical writing.
- Topic 3. Non Arthropoda invertebrates. Porifera, Cnidarians, Anelida, Mollusca, Chelicerate, Crustacea, Miriapoda and others.
- Topic 4. Arthropoda. Chelicerate, Crustacea and others; Hexapod (Insects).
- Topic 5. Systematics and Evolution of Vertebrates. Sub-disciplines.
- Topic 6. Iberian Fauna.
- Topic 7. Study methodology and inventories. Estimation of abundance. Ethology. Capture and marking. Foods, Habitat Use. Management and Conservation.
- Topic 8. Relation with Man. Domestication, damages, impact, culture, use.

Practice sessions

- 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.

4.4. Course planning and calendar

Calendar of face-to-face lectures and report presentations

- Week 1. Subject presentation.
- Week 2. Chapters 1 and 2.
- Week 3. Chapter 3.
- Week 4. Chapter 3.
- 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

Further information concerning the timetable, classroom, office hours, assessment dates and other details regarding this course will be provided on the first day of class or please refer to the Faculty of Sciences website and Moodle.

4.5. 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** Díaz, José A. Zoología : aproximación evolutiva a la diversidad y organización de los animales / José A. Díaz, Tomás Santos. Madrid : Síntesis, D.L. 1998
- 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:

Acceso libre y gratuito a los datos de biodiversidad

[<http://www.gbif.org/>]

AnimalBase

[<http://www.animalbase.org/>]

Bioimágenes (Banco de imágenes de la Facultad de Biología UCM)

[<http://bioimagen.bioucm.es/>]

Código internacional de nomenclatura zoológica. 4a. ed. (Comisión Internacional de Nomenclatura Zoológica)

[<http://www.sam.mncn.csic.es/codigo.pdf>]

Enciclopedia virtual de los vertebrados españoles

[<http://vertebradosibericos.org/>]

Fauna ibérica

[<http://www.fauna-iberica.mncn.csic.es/>]

IUCN, International Union for Conservation of Nature

[<https://www.iucn.org/>]

Nores Quesada, C. (2013). Manual para la gestión de poblaciones de mamíferos. Instituto de Recursos Naturales y Ordena

[

https://www.researchgate.net/profile/Carlos_Nores/publication/299981426_Manual_para_la_gestion_de_poblaciones_de_m

]

Reduca (Recursos Educativos)

[<http://revistareduca.es/>]

Species 2000

[<http://www.sp2000.org/>]

World Biodiversity Database

[<https://www.nhbs.com/3/series/world-biodiversity-database>]

The updated recommended bibliography can be consulted in:<http://psfunizar10.unizar.es/br13/egAsignaturas.php?codigo=25252>