COURSE DATA

DATA SUBJECT

Code: 36830
Name: Zoology I
Cycle: Undergraduate Studies
ECTS Credits: 6
Academic year: 2025-26

STUDY (S)

Degree	Center	Acad. year	Period
1106 - Degree in Biology	Facultat de Ciències Biològiques	1	Annual

SUBJECT-MATTER

Degree	Subject-matter	Character
1106 - Degree in Biology	Biología	BASIC

COORDINATION

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SUMMARY

The subject Zoology I is included in the subject Animal Biology, which is mandatory in the Biology Degree. The subject comprises 6 ECTS credits and is taught in the 1st year of the Degree. This is complemented by the subject Zoology II taught in the 2nd year. Zoology I offers an introduction to the discipline of Zoology and is structured around two blocks of thematic content.

The first block, **basic aspects of the animal kingdom**, includes the most general facets of Zoology in which to address current hypotheses about the origin of metazoans, the study of the various groups of protists with animal affinities is essential, evaluating their health importance. It is also necessary to deepen and expand aspects of embryonic development and animal architecture, as well as the different life cycles. In this way, the bases are established to present the current animal classification, ending this block of content.

The second block includes animal **biodiversity** formed by non-arthropod protostomes in which the study of all phyla is addressed, emphasizing those most representative of each body plan ("Bauplan") or most notable for their diversity, health, ecological or phylogenetics.

The third block is made up of **laboratory practices** in which the basic models (bauplan) of the animals seen during the development of block 2 will be studied. Practices will also be carried out that contribute to the acquisition of basic skills (CB5), transversal CT03, CT04 and CT08 and specific CE06.
On the other hand, the simultaneity of the subjects Zoology I and Botany I allows us to coordinate a field trip, with which we can optimize resources and help students better understand these subjects together,

dedicated to the description of biodiversity.

PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

There are no specified enrollment restrictions with other subjects of the curriculum.

OTHER REQUIREMENTS

No enrollment restrictions with other curriculum subjects have been specified.

COMPETENCES / LEARNING OUTCOMES

1106 - Degree in Biology

Develop the skills needed to carry out a professional activity with a proactive attitude towards the world of work and with an innovative and entrepreneurial spirit. Be able to apply sustainability criteria and to work within the framework of professional ethics.

Organise, plan and manage information in a manner that allows the individual to analyse, synthesise and develop critical reasoning that can be applied to solve problems, make decisions and carry out work.

Students must be able to apply their knowledge to their work or vocation in a professional manner and have acquired the competences required for the preparation and defence of arguments and for problem solving in their field of study.

Students must have the ability to gather and interpret relevant data (usually in their field of study) to make judgements that take relevant social, scientific or ethical issues into consideration.

Understand the morphological and functional diversity of living beings. Understand the functions of the basic underlying mechanisms from an integrative point of view and their adaptations to the environment throughout their history.

Understand the phylogenetic and geographical relationships of living organisms, as well as their taxonomy and systematics. Apply current scientific techniques to identify organisms and discern their phylogenetic relationships.

Use ICTs, apps and other computer tools to manage and disseminate information in both educational and professional environments.

DESCRIPTION OF CONTENTS

1. Basic aspects of the animal kingdom

TOPIC 1.- Zoology concept and limits. Zoological nomenclature. Phylogeny and animal classification.
TOPIC 2.- Origin of animals and protists.
TOPIC 3.- Development, bauplan, Animal diversity.

2. Animal diversity

In this block, the animal taxa specified in the contents will be studied, following the same format that will include the most relevant aspects of form and function, classification, ecology and phylogeny.
TOPIC 4.- Phylum Porifera. Body organization. Health interest.
TOPIC 5.- Phylum cnidarians. Metagenesis and coral reefs. Phylum ctenophores. Phylum Placozoa.
TOPIC 6.- Bilateralia. Protostomes. Phylum flatworms. Life cycles. Parasitism. Economic and health importance.
TOPIC 7.- Phylum mollusks. Adaptive radiation. Economic and ecological importance.
TOPIC 8.- Phylum annelids. Metamerism and hydrostatic skeleton.
TOPIC 9.- Bilateralia. Protostomes. Spiralia: diversity.
TOPIC 10.- Ecdysozoa: main groups. Phylum nematodes. Life cycles. Health, economic and ecological importance.

3. Practices

PRACTICE 1.- Techniques for studying invertebrates.
PRACTICE 2.- Poriferous. Study and identification of the spicular skeleton and diversity.
PRACTICE 3.- Cnidarians. Study of anatomy and diversity.
PRACTICE 4.- Flatworms. Study of anatomy and diversity.
PRACTICE 5.- Mollusks I. Morphological study of gastropods and bivalves and classification with the use of dichotomous keys.
PRACTICE 6.- Mollusks II. Dissection of a cephalopod mollusk and study of locomotion based on the inference of internal skeletal structures.
PRACTICE 7.- Annelids. Study of external and internal anatomy, locomotion and diversity.
PRACTICE 8.- Nematodes. Dissection of a nematode. Anatomy and diversity.
PRACTICE 9.- Triage and identification of marine invertebrates I and development of a database for the calculation of biodiversity indices
PRACTICE 10.- Triage and identification of marine invertebrates II. (1 hour)
Note: The order of the practical sessions may be altered for educational organizational reasons.

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Tutorials	4,00
Theory	30,00
Laboratory	26,00
Total hours	**60,00**

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	0,00
Independent study and work	90,00
Preparation of lessons	0,00
Preparation for assessment activities	0,00
Resolution of case studies	0,00
Total hours	**90,00**

TEACHING METHODOLOGY

¿ **Participatory theoretical classes:** The teachers will present the fundamental concepts of each of the topics. During these sessions, students will be oriented regarding bibliography and resources that they can consult. The time necessary to teach each of the topics is variable. Some topics can be complemented with the projection of videos and animations. Questionnaires may also be implemented before or after the sessions.

¿ **Practical laboratory classes:** 10 laboratory practices have been designed, lasting two hours except for the practice 10. The first of them will focus on some techniques for studying and mounting invertebrate animals for their study. The following seven focus on the typical model (bauplan) of specific animal taxa and will be taught in coordination with the theoretical contents. The last two practices of a transversal nature will be dedicated to the analysis of the fauna sampled during the field trip to a marine ecosystem. During these last two practices, students will exercise their observation skills, direct and indirect identification of fauna, integrating and extracting general ecological patterns. IMPORTANT: Before each practice, students will have a script that they must read before performing them. During the session the teacher will introduce the objective of the practice and remember the basic concepts that will be handled. During the rest of the session, students will practice under the teacher's supervision.

¿ **Interdisciplinary field trip:** An interdisciplinary field trip will be carried out in coordination with the subject Botany I to a coastal marine ecosystem. On the field trip, students will collect specimens using different techniques, for later storage and analysis in practice sessions 9 and 10. Students will work in teams of between two and four people (to be decided in the field) compulsorily formed by students from the same subgroup of practices.

¿ **In-person tutorials in small groups (16 students):** The tutorials will be carried out in two sessions on the dates indicated in the calendar of the second semester. In these, the students will solve questions previously proposed by the teachers. These tutorials are aimed at expanding, deepening or clarifying

aspects covered by the theoretical classes or at discussing current topics that are directly related to the subject. Delivery to the teaching staff of the proposed activities is mandatory.

¿ **Individual tutorials:** They will be used to resolve specific issues or personal problems of the students in relation to the subject. They may be in person, virtual or through email.

¿ **Voluntary activities:** Students will be able to voluntarily carry out complementary activities proposed by the teaching staff that complete the training and increase active participation in class.

¿ **BioGrau:** It is a mandatory activity for students enrolled for the first time in the Biology subject of the Biology degree, for those who have not previously completed it or who, having joined the degree due to file transfer or other reasons, have not been exempt from completing it. It is an interdisciplinary activity that consists of participation in the BioApS project or in the preparation and defense of a work in poster format within the framework of the Biology Congress (BIOGRAU) that takes place annually at the end of the course.

EVALUATION

A continuous evaluation of each student will be carried out, based on face-to-face and non-face-to-face activities. Participation in face-to-face activities, presentation and completion of voluntary work and activities, and participation and involvement in the teaching-learning process will be valued.
The aspects that will be evaluated will be the following:
The contents of the subject will be evaluated as follows, considering that theory will have a weight of 60% and practices of 30%.
. Evaluation of theoretical contents:
A final exam will be taken, requiring a minimum grade of five to pass the subject. The grade obtained will represent 80% of the grade for the theoretical contents. There will also be **mandatory work** with public exhibitions that will account for 10% of the grade for the theoretical contents. The detection of plagiarism will be penalized accordingly, and the teacher may proceed in the manner he or she considers appropriate in the assessment of this work.

. Evaluation of group tutorials (10%):
The final theoretical exam will include questions corresponding to the contents of the tutorials (5%). The individual and group work carried out during the tutorials will represent 5% of the grade of the theoretical contents.
. Evaluation of practical laboratory classes and field trips (30%):
A final exam will be carried out, requiring a minimum grade of five to eliminate subject, represents **30%** of the final grade for the subject. The exam will involve an assessment of the student's acquisition of identification skills of the taxonomic groups worked on in the practices, correct description of the specimens and representative drawing. This will also evaluate the morpho functional interpretation proposed in the different groups.
The **attendance** at **laboratory practices**, **field trips** and **tutoring** face-to-face group is **mandatory**. The unjustified absence of **20%** from the hours dedicated to each of these activities will mean a **zero** in the corresponding activity.
¿**Evaluation of voluntary activities (up to 1 point):**
The grade obtained in the voluntary and complementary activities that the student has carried out during

the course will contribute to modulating the final grade for the subject with a **maximum value of +1.0 points.**

. The qualification obtained in voluntary and complementary activities during the previous academic year can be saved for the next academic year.

. Interdisciplinary work (10%): The grade obtained in the interdisciplinary work will account for 10% of the course grade. The tutor and co-tutor of the work will participate in the grading. Review the work regulations in the corresponding teaching guide. Passing the subject (Zoology I) is essential for the grade for this activity to be recorded (read BioGrau instructions).

In the event that the student does not pass only the theoretical part of the subject, the grade obtained in the laboratory practices will be maintained, at most, for the following two academic years.

The theoretical and practical content approved in the 1st call will be kept until the 2nd call.

Evaluation summary

	Instrument	**Percentage (%)**
Theoretical content (60%)	Examination*	80
	Obligatory Works	10
	Tutorials	10
	It represents the	**60**
Contingut i eixides de camp (30%)	Examination*	30
	It represents the	**30**
Biograu (10%)	Biograu	**10**
Final Note		**100**

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