VNIVERSITAT DE VALÈNCIA

Course Guide
43240 Arthropods and terrestrial ecosystems: Constant evolution

COURSE DATA

DATA SUBJECT

Code: 43240
Name: Arthropods and terrestrial ecosystems: Constant evolution
Cycle: Master's Degree
ECTS Credits: 3
Academic year: 2026-27

STUDY (S)

Degree	Center	Acad. year	Period

SUBJECT-MATTER

Degree	Subject-matter	Character

COORDINATION

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SUMMARY

"Arthropods and Terrestrial Ecosystems: Constant Evolution" is part of the core subjects of the university master's degree in Biodiversity: Conservation and Evolution. It approaches the group of arthropod animals, emphasizing their biological and ecological strategies and considering these in the framework of a constant evolution in their interrelationships into terrestrial ecosystems. Its study load is 3 credits. The activities contemplated are: theoretical sessions in the classroom, practical sessions in the laboratory and a field trip (provided that the budgeted economic availability allows it).

PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

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

OTHER REQUIREMENTS

None.

COMPETENCES / LEARNING OUTCOMES

2148 -

Awaken interest in the social and economic application of science.

Be able to access the information required (databases, scientific articles, etc.) and to interpret and use it sensibly.

Be able to access to information tools in other areas of knowledge and use them properly.

Be able to communicate and disseminate scientific ideas.

Be able to make quick and effective decisions in professional or research practice.

Encourage ethical commitment and environmental awareness.

Favour intellectual curiosity and encourage responsibility for one's own learning.

Stimulate the capacity for critical reasoning and for argumentation based on rational criteria.

Students should apply acquired knowledge to solve problems in unfamiliar contexts within their field of study, including multidisciplinary scenarios.

Students should be able to integrate knowledge and address the complexity of making informed judgments based on incomplete or limited information, including reflections on the social and ethical responsibilities associated with the application of their knowledge and judgments.

Students should communicate conclusions and underlying knowledge clearly and unambiguously to both specialized and non-specialized audiences.

Students should demonstrate self-directed learning skills for continued academic growth.

Students should possess and understand foundational knowledge that enables original thinking and research in the field.

To be able to assess the need to complete the scientific, historical, language, informatics, literature, ethics, social and human background in general, attending conferences, courses or doing complementary activities, self-assessing the contribution of these activities towards a comprehensive development.

DESCRIPTION OF CONTENTS

1. Introduction to the arthropods

Comparative general external morphology of large arthropodian groups. Approach to the classification and phylogeny of the large arthropodian groups.

2. Ametabolous hexapods

The orders of parainsects and apterous insects. Morphological characterization, diversity, classification and phylogeny. Ecological importance.

3. Hemimetabolous hexapods

The orders of paleopterous insects. Morphological characterization, diversity, classification and phylogeny. Ecological importance.

4. Paurometabolous hexapods

The orders of orthopteroid and hemipteroid insects. Morphological characterization, diversity, classification and phylogeny. Ecological, economic and sanitary importance.

5. Holometabolous hexapods

The orders of hymenopteroid, neuropteroid and mecopteroid insects. Morphological characterization, diversity, classification and phylogeny. Ecological, economic and sanitary importance.

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Total hours	**0,00**

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	0,00
Independent study and work	45,00
Preparation of lessons	0,00
Preparation for assessment activities	0,00
Resolution of case studies	0,00
Total hours	**45,00**

TEACHING METHODOLOGY

Each thematic unit includes theoretical-practical teaching and learning activities.

Each unit consists of face-to-face sessions in theoretical, master-participatory classes, lasting 1 hour or 1 ½ depending on the needs of the teaching organization. In addition, there are face-to-face sessions in the practical laboratory, lasting 2 hours, where students work preferably in pairs, which complement and strengthen the fundamental knowledge of the thematic unit. The total hours in these sessions are 30, of which 14 are theoretical and 16 are practical.

Note: Provided that the budgeted economic availability in each academic year allows it, a field trip would take place that would take 6 hours. If that were the case, these hours would be deducted from those corresponding to the laboratory practices, so the latter would then add up to a total of 10 hours.

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EVALUATION

The evaluation of the course will be carried out as follows:

- Theoretical exam, which will account for 50% of the final grade of the course.

- Practical visual exam, which will account for 40% of the final grade of the course.

- A theoretical seminar, which will account for 10% of the final grade of the course.

REFERENCES

- Se pondrán a disposición del alumnado todas aquellas fuentes bibliográficas que, en el momento de la impartición de la materia ofertada, estén actualizadas y se adecúen a su formación.

- Es posarà a disposició de lalumnat totes aquelles fonts bibliogràfiques que, en el moment de la impartició de la matèria ofertada, estiguen actualitzades i se adeqüen a la seua formació.

- All those bibliographic sources that, at the time of teaching the subject offered, are up-to-date and appropriate to their training, will be made available to students.