

**COURSE DATA****DATA SUBJECT**

Code: 43241
Name: Nematology
Cycle: Master's Degree
ECTS Credits: 3
Academic year: 2026-27

STUDY (S)

Degree	Center	Acad. year	Period
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SUBJECT-MATTER

Degree	Subject-matter	Character
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COORDINATION

PEREZ DEL OLMO ANA

REPULLES ALBELDA AIGÜES

SUMMARY

This subject deals with the study of both parasitic and free-living nematodes. Special interest is given to pathogenic species and the role of nematodes in ecosystems, as well as their possible use as bioindicators of ecosystem quality.

The aim is for students to acquire basic knowledge of nematology and its current development, especially its applied aspects. They must also become familiar with the main trophic groups in which they are integrated and the techniques that allow their extraction, collection and identification.

It is essential that they understand the importance of pathogenic species, that they learn to recognise them and assess the damage they can cause, that they are aware of their biological, ecological, economic and health importance.

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

DESCRIPTION OF CONTENTS

1. Nematodes. General concepts.

Introduction. Objectives. Morphological characteristics of parasitic and free-living nematodes. General classification.

2. Detection and study of animal parasitic nematodes.

Study techniques: digestion and other detection methods; dissection, clearing and preparation of microscopic slides.

3. Detection and study of edaphic nematodes.

Methods and techniques for sampling, extraction, mounting and identification of edaphic and meiobenthic nematodes.



4. Diversity of parasitic nematodes

Observation of morphological features with magnifying glass and microscope. Use of specialised keys.

5. Diversity of edafic and phytopathogenic nematodes.

Observation of morphological features with magnifying glass and microscope. Use of specialised keys.

6. Diversity of meiobenthic nematodes.

Observation of morphological features with magnifying glass and microscope. Use of specialised keys.

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Total hours	0,00

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	5,00
Independent study and work	16,00
Preparation of lessons	6,00
Preparation for assessment activities	0,00
Resolution of case studies	18,00
Total hours	45,00

TEACHING METHODOLOGY

At the beginning of the course there will be an outing to have a first practical contact with the ecological and economic implications of nematofauna, taking advantage of the season of greatest biological activity. The following sessions will begin with a theoretical content session, to later focus on the practical sessions that represent the bulk of the course. The practical activities will also include theoretical questions.

Samples will be taken both in the laboratory and in the field. These will be studied and identified in the laboratory. Students will produce a practical booklet in which they will include all the details about the different study techniques. In the last session, different aspects related to free-living nematodes will be presented in seminars.



EVALUATION

For the assessment of learning, each student will produce a report/booklet on the practical sessions, where it will be necessary to accredit the knowledge acquired, both theoretical and practical. As continuous assessment, the practical sessions will be linked to questionnaires that the student will have to answer. It will also be necessary to show the material worked on during the classes and the presentation of the preparations. The different partial contributions of the qualifications will be the following:

Report and Seminar..... 60%
Continuous evaluation of practical aspects..... 40%

REFERENCES

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