

**COURSE DATA****Data Subject**

Code	43121
Name	Retrieval, identification and interpretation of biotic records
Cycle	Master's degree
ECTS Credits	3.0
Academic year	2023 - 2024

Study (s)

Degree	Center	Acad. year	Period
2143 - M.D. in Archaeology	Faculty of Geography and History	1	First term

Subject-matter

Degree	Subject-matter	Character
2143 - M.D. in Archaeology	3 - From archaeological register to archaeological heritage	Obligatory

Coordination

Name	Department
BADAL GARCIA, ERNESTINA	360 - Prehistory, Archaeology and Ancient History
CARRION MARCO, YOLANDA	296 - Prehistory and Archaeology
PEREZ LUIS, LEOPOLDO JESUS	360 - Prehistory, Archaeology and Ancient History

SUMMARY

This course aims at giving a specialized formation in methods, analysis and interpretation of biotic remains found at archaeological sites. Two branches work: Fauna (Archaeozoology, taphonomy and microvertebrates) and flora (Archaeobotany). A specialist teacher in one of them will present each one.

Environmental sciences have been systematically integrated into the approaches of archaeology; so, it is necessary to offer modules in these fields for future professionals. In this programme, the biotic remains are treated as a source of cultural and environmental knowledge.

The objective is to know the field and laboratory methods to recover and identify biotic remains.



Attention is paid to taphonomy, cultural, ecological, etc. information

The management of plant and animal resource of a cross shape will work from Prehistory to History, paying attention to climate and cultural changes.

Efforts will be made to student's knowledge to interpret the reports by specialist's archaeobotany and osteoarchaeology, to complete the interdisciplinary analysis that needs to archaeology

PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

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

Other requirements

Relationship to other subjects of the same degree:

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

Other requirements:

No prerequisites except those established to access the Master.

OUTCOMES

2143 - M.D. in Archaeology

- 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 demonstrate self-directed learning skills for continued academic growth.
- Be able to access the information required (databases, scientific articles, etc.) and to interpret and use it sensibly.
- Students should possess and understand foundational knowledge that enables original thinking and research in the field.
- Integrarse en el trabajo arqueológico en equipo, considerando la diversidad de campos de actuación y la formación que implica la labor de campo o la investigación arqueológica.
- Conocer y utilizar las herramientas de información de otras áreas de conocimiento (Geoarqueología, Cartografía, Topografía, Estadística y Arqueometría), recurriendo adecuadamente a ellas en relación con las necesidades que plantee el trabajo en Arqueología.



- Adquirir y asumir los principios de la ética profesional o investigadora en relación con la Arqueología de cara a su futura labor profesional y respetar la legislación en materia de Patrimonio arqueológico.
- Analizar y sintetizar información de manera crítica. Trabajar de forma autónoma, resolviendo problemas y tomando decisiones.
- Conocimiento de las principales problemáticas, teorías y métodos de investigación arqueológicos aplicados al Mediterráneo Occidental.

LEARNING OUTCOMES

Basically, it is intended that the students who study this subject:

- 1) Acquire a general knowledge of the basic principles of Archeobotany and Osteoarchaeology.
- 2) Have a clear perception of the applications of these studies and their contribution to problem solving.
- 3) Be aware of the information that can be obtained with each of the biotic remains, as far as cultural and environmental aspects are concerned.
- 4) Learn the usefulness of analyses of bone remains and flora to know the societies of the past and the environment where they were developed.

In short, it is a matter of preparing the student so that in his future professional development he will be able, by working in multidisciplinary teams, to sample and analyse the archaeological materials that best adapt to the information he wants to obtain: chronology, economics, ecology, etc.

DESCRIPTION OF CONTENTS

1. The archaeobotany

1. The archaeobotany. Definition and historical development
2. The vegetable macro-remains wood, seeds, leaves. Sampling strategies.
3. The micro-remains plant: pollen, spores, phytoliths. Sampling strategies.
4. Applications archaeobotany
5. Macrorremains and Radiocarbon. Problems to be solved.
6. Laboratory practices

2. Osteoarchaeology

1. archaeozoology
2. Taxonomy
3. Taphonomy
4. Microfaunal remains

**WORKLOAD**

ACTIVITY	Hours	% To be attended
Theory classes	12,00	100
Laboratory practices	3,00	100
Classroom practices	3,00	100
Development of individual work	10,00	0
Study and independent work	30,00	0
Readings supplementary material	10,00	0
TOTAL	68,00	

TEACHING METHODOLOGY**A.- The Lessons**

The subject will be imparted intercalating the exposition of the theoretical program with examples of application of the described analytical techniques to the study of biotic materials: bone remains and flora.

The laboratory practices will be carried out, in laboratory of the Department of Prehistory, Archaeology and Ancient History.

In the theoretical classes, the teacher will develop the program of the subject with support of audio-visuals media, seeking the participation of the students through the presentation of simple situations and problems. It will be proposed that the students make readings that complement the exposure by the teachers of a certain subject. The readings will generally be of articles or of some chapter of the manuals that are indicated.

In practical laboratory classes students will be in direct contact with the analytical instrumentation participating in the process of preparation, measurement and analysis of samples of prehistoric fauna and flora.

B. Tutorials:

Students will be able to attend the regular tutorials, established in the faculty teaching calendar, for all types of queries related to the content of the syllabus or any other matter related to the subject.



EVALUATION

The above mentioned methodological approach pursues the objective of favoring a frequent and continuous contact of the teaching staff with the students so that it is possible to know the progress of their learning and to carry out an evaluation of this in several levels and taking care of several aspects.

Thus, the evaluation of the subject will consist of a continuous assessment complemented with objective data from the work carried out by the students:

- Students must attend at least 80% of the classes.
- A work or a test with multiple response items will be carried out, in which the knowledge acquired by the students during the course will be evaluated. The score of this test will represent 90% of the overall rating. Complementary activities as well as continuous assessment during class will contribute up to 10% of the overall grade.

The subject will be considered approved when the student receives an overall grade greater than or equal to 5 out of 10.

REFERENCES

Basic

- Bourquin-Mignot, C.; Brochier, J.E.; Chabal, L. et alii. 1999. La botanique: Col. Archéologiques. Editions Errance.
- Buxó, R. y Piqué, R. 2003. La recogida de muestras en arqueobotánica. Objetivos y propuestas metodológicas. Museu d'Arqueologia de Catalunya.
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- CLUTTON-BROCK, J. 1999. A natural history of domesticated mammals. Cambridge : Cambridge University Press.
- DAVIS, S.J.M., 1989. La arqueología de los animales. Bellaterra.
- GAUTIER, A., 1990. La domestication. Errance, Paris.
- Villaverde.V. 2001. De neandertales a cromañones. El inicio del poblamiento humano en las tierras valencianas. Universitat de València.
- VIGNES,J., D., HELMER,D. y PETERS,J (Eds), 2006. The First Steps of Animal Domestication. Oxbow Books.
- Andrews, P., 1990. Owls, caves and fossils. University of Chicago Press, Chicago.
- Blasco-Sancho, M.F. 1992. Tafonomía y Prehistoria. Métodos y procedimientos de investigación. Universidad de Zaragoza.



- - Revistas:
 - Journal of Quaternary Science
 - The Holocene
 - Quaternary Science Reviews
 - Trends in Genetics
 - Munibe
 - American Antiquity
 - Anthropolozoologica
 - Paléo
 - Archaeofauna
- Revistas:
 - Journal of Quaternary Science
 - The Holocene
 - Quaternary Science Reviews
 - Vegetation History and Archaeobotany
- Webs:
 - <http://www.uv.es/floraiberica>
 - <http://www.anthos.es/>
 - <http://www.paldat.org>
 - <http://www.paleodiversitas.org>