

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

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|----------------------|-----------------|
| <b>Code</b>          | 43109           |
| <b>Name</b>          | Geoarchaeology  |
| <b>Cycle</b>         | Master's degree |
| <b>ECTS Credits</b>  | 2.0             |
| <b>Academic year</b> | 2022 - 2023     |

**Study (s)**

| <b>Degree</b>                         | <b>Center</b>                    | <b>Acad. year</b> | <b>Period</b> |
|---------------------------------------|----------------------------------|-------------------|---------------|
| 2143 - Master's Degree in Archaeology | Faculty of Geography and History | 1                 | First term    |

**Subject-matter**

| <b>Degree</b>                         | <b>Subject-matter</b>                  | <b>Character</b> |
|---------------------------------------|--|------------------|
| 2143 - Master's Degree in Archaeology | 1 - Theory and practice of archaeology | Obligatory       |

**Coordination**

| <b>Name</b>                          | <b>Department</b> |
|--------------------------------------|-------------------|
| CARMONA GONZALEZ, MARIA PILAR ASCENS | 195 - Geography   |

**SUMMARY**

The subject aims to educating students in the techniques of fieldwork (prospection and excavation), as well as procedures for the management of information generated. This indispensable for the exercise of archaeological practice. Similarly, it will introduce students to the knowledge of the basic principles of geomorphology, sedimentology and stratigraphy needed to understand and evaluate the formation of geoarchaeological record.

In this subject it is important to see live the problems presented archaeological and stratigraphic deposits of interest. Therefore we have scheduled two highly practical workshops, laboratory work and field exit.

The material is divided into four distinct subjects of theoretical content and / or practical. Each will be taught by specialist teachers.



## 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 prerequisites are required except those set to access the Masters.

## COMPETENCES (RD 1393/2007) // LEARNING OUTCOMES (RD 822/2021)

### 2143 - Master's Degree in Archaeology

- Capacidad para delimitar las características de un yacimiento arqueológico y su interés
- Capacidad de utilizar las herramientas informáticas, cartográficas y estadísticas adecuadas para la actividad arqueológica profesional o investigadora.
- 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.
- Valorar las estrategias de desarrollo de la actividad de campo y de gestión, o de investigación en Arqueología. Habida cuenta de que cualquier actividad de campo, de gestión o de investigación en Arqueología requiere una adecuada comprensión de los objetivos, tiempos, medios y recursos disponibles, así como una planificación adecuada de las metodologías y acciones a llevar a cabo en relación con los mismos.
- 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.

## LEARNING OUTCOMES (RD 1393/2007) // NO CONTENT (RD 822/2021)

Mastering the subject means not only the acquisition of basic knowledge about the subjects that compose it, but also the development of a series of abilities, methods and ways of thinking and skills they start the students into the specificity of the "Theory and Practice of Archaeology "necessary for professional practice and research management.

Among these skills are:

- Comprehensive reading of the basic literature reference.
- Correctly handle the terminology and vocabulary.
- Manage appropriate planimetries print and web.
- Data capture in the field using appropriate technology (GPS, Optical Level, Total Station).
- Information management (CAD, GIS).
- Prepare reports of excavation and exploration an organized way.

Specifically, this subject tries to get have some knowledge of geoarchaeology to Design, implement and submit a draft archaeological survey.

Develop a mapping from archaeological data collected in the field.

## DESCRIPTION OF CONTENTS

### 1. Geoarchaeology

1. Geoarchaeological approach. The spatial and temporal resolution. Pleistocene and Holocene. Climate change and sea level.
2. Fluvial environments. Forms, processes and sediments.
3. Coastal environments. Forms, processes and sediments.
- 4 The karsts media. Forms, processes and sediments.
5. Basics slopes environments. Sediments.
6. The formation of the sedimentary record. Stratigraphy Basics

### 2. Field Exit

1. Management topographic basic maps, thematic mapping (geomorphological and geological) and aerial photography.
2. Analysis of the physical context of a site.
3. Analysis of a sedimentary record. Stratigraphy.
4. Environmental change and geoarchaeological record.



## WORKLOAD

| ACTIVITY         | Hours        | % To be attended |
|------------------|--------------|------------------|
| Theory classes   | 10,00        | 100              |
| Other activities | 2,00         | 100              |
| <b>TOTAL</b>     | <b>12,00</b> |                  |

## TEACHING METHODOLOGY

### A. The lessons

The subject has two parts with a distinct methodology: theoretical lectures and practical classes in the classroom and outside the campus.

Lessons take place at 2 hours per week, which will be taught theoretical knowledge except practical classes (whorkshops) and exits to the field that will have a specific schedule. Its development will use audiovisual media (presentations and projection of digital files). These classes will be magisterial and practical type.

They propose that students take readings prior to exposure by teachers of a particular subject. The readings are usually of articles or a chapter of the manual.

It will monitor the readings through the exercises done during the time of practice and during the lectures.

The practical classes and exits to the field aim to strengthen and apply to specific cases the knowledge acquired during lectures.

### B. Tutorials:

If the development of the subject required to be established scheduled tutorials that students can pose problems or questions about the development of the teachers responsible or respective modules. In any case, students may attend regular tutorials, established teaching staff schedule for all types of questions related to the content of the agenda or any other matter related to the subject or its modules.

C. Assistance complementary activities are not pre-programmed. But be advised to attend conferences, courses and / or statements that relate to the topic of the subject.

## EVALUATION

The methodological approach outlined above pursues the objective to promote frequent and continuing contact with the student teacher so that it is possible to know the progress of their learning and carry out an evaluation of it at various levels and based on several aspects. Thus, the evaluation of the subject will provide continuous assessment complemented with objective data from the work carried out by the students:



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- Assistance to the 80% minimum of the classes.
  - obligatory presentation work:
    - Realization of a small check test knowledge acquired in the course of Geoarchaeology.
  - Will be evaluated on class participation, how to present the work and its content.
- Attendance at conferences, seminars and tours: you can program a set of activities outside the classroom, the obligatory character of which students must take account through their active assistance to them.
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## REFERENCES

### Basic

- Butzer, K. (1989): *Arqueología una ecología del hombre*. Bellaterra. Barcelona
  - Santonja, M., Pérez-González, A., Machado, M.J. (Eds.) (2005): *Geoarqueología y patrimonio en la Península Ibérica y el entorno mediterráneo*. Adema, Soria.
  - Goldberg, P. Macphail, R.I. (2006): *Practical and teoretical Geoarchaeology*. Blackwell Science Ltd. Australia.
  - Leveau, Ph., Trément, F., Walsh, K., Barker, G. (Eds.): (1999): *Environmental Reconstruction in Mediterranean Landscape Archaeology*. Oxbow Books, Oxford.
  - Rapp, G. y Hill, Ch. (1998): *Geoarchaeology*. Yale University Press. London.
  - Walsh, K. (2014) *The Archaeology of Mediterranean Landscapes*, Cambridge University Press, 367 pp.
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