

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

Code	44308
Name	Museum studies and communication of palaeontological heritage
Cycle	Master's degree
ECTS Credits	3.0
Academic year	2023 - 2024

Study (s)

Degree	Center	Acad. year	Period
2200 - M. U. en Paleontología Aplicada	Faculty of Biological Sciences	1	Second term

Subject-matter

Degree	Subject-matter	Character
2200 - M. U. en Paleontología Aplicada	5 - Management of palaeontological heritage	Optional

Coordination

Name	Department
MARTINEZ PEREZ, CARLOS	356 - Botany and Geology

SUMMARY**PREVIOUS KNOWLEDGE****Relationship to other subjects of the same degree**

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

Other requirements

There are no enrolment restrictions with other subjects in the syllabus. However, it is advisable to have a minimum knowledge of Zoology, Ecology, as well as general Geology and Palaeontology.



OUTCOMES

2200 - M. U. en Paleontología Aplicada

- 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.
- Be able to access to information tools in other areas of knowledge and use them properly.
- Be able to communicate and disseminate scientific ideas.
- Ser capaces de trabajar en equipo con eficiencia en su labor profesional o investigadora, adquiriendo la capacidad de participar en proyectos de investigación y colaboraciones científicas o tecnológicas
- Ser capaces de realizar una toma rápida y eficaz de decisiones en situaciones complejas de su labor profesional o investigadora, mediante el desarrollo de nuevas e innovadoras metodologías de trabajo adaptadas al ámbito científico/investigador, tecnológico o profesional en el que se desarrolle su actividad.
- Ser capaces de acceder a la información necesaria en el ámbito específico de la materia (bases de datos, artículos científicos, etc.) y tener suficiente criterio para su interpretación y empleo.
- Aplicar la Ciencia desde la óptica social y económica, potenciando la transferencia del conocimiento a la Sociedad.
- Capacidad para preparar, redactar y exponer en público informes y proyectos de forma clara y coherente, defenderlos con rigor y tolerancia y responder satisfactoriamente a las críticas que pudieren derivarse de su exposición.
- Proyectar la inquietud intelectual y fomentar la responsabilidad del propio aprendizaje.
- Asumir el compromiso ético y la sensibilidad hacia los problemas medioambientales, hacia el patrimonio natural y cultural.
- Conocer y entender la paleodiversidad de los seres vivos, sus relaciones ecosistémicas y la distribución paleogeográfica alcanzada por los principales grupos de seres vivos a lo largo de la historia de la Tierra.
- Conocer, entender y extraer conclusiones, aplicables al momento actual, sobre las crisis de diversidad biológica, sus causas y consecuencias en el marco del actualismo.
- Comprender en profundidad la naturaleza histórica del proceso evolutivo, tanto en sus aspectos de irrepetibilidad y contingencia, como en aquellos vinculados al cumplimiento de leyes de la naturaleza de toda índole y, por tanto, de necesidad.



- Conocer y manejar con destreza las técnicas de campo, laboratorio y gabinete para la extracción, preparación, catalogación, reconstrucciones digitales, estudio y divulgación de microfósiles y macrofósiles.
- Conocer y entender los fundamentos legales a nivel de la UE, Estado Español y Comunidades Autónomas españolas la protección y conservación del patrimonio paleontológico.
- Conocer las técnicas utilizadas en Museística para la gestión del patrimonio paleontológico, distinguiendo en visitas guiadas de trabajo casos de éxito en el campo de la Paleontología (Dinópolis, Institut Català de Paleontologia, Museo Paleontológico de Elche).
- Realizar estudios, aplicando los métodos y técnicas necesarios para conservar y gestionar el patrimonio paleontológico.
- Desarrollar las habilidades experimentales en el manejo de material y equipos de laboratorio en paleontología.

LEARNING OUTCOMES

In this subject, students will know and understand the role of elements in Museology, their history, origin of museum collections and the objectives and standards of cataloging in naturalist museums, they will recognize the character of fossils as elements of Natural Heritage, the application of Museology to this Heritage, the factors that may affect its conservation, the preparation / restoration of natural specimens. Existing methods and experiences, the dynamics and management of paleontological collections, and scientific research in museums. You will also understand the relationships between Museology and Museography; the design and organization of exhibitions; the elaboration of projects in Museography, the virtual didactic Museography. Likewise, the students will know the concept of paleontological sites, their potential for use (dissemination and dissemination), the strategic elements in conservation and research, the existing media (interpretation centers, exhibitions, museum collections, private collections, university collections , etc.), as well as the elements attached to the project (accessibility, signage, carrying capacity, etc.), to conclude by knowing the legislation applied to the communication of paleontological heritage and different projects for the communication of this Heritage.

DESCRIPTION OF CONTENTS

1. Theoretical Block

Unit 1. Museum concept. Museology. Elements of Museology. History of museology and the origin of the museum's collections and objectives.

Unit 2. The Role of Museums in Heritage Conservation. Types of Museums. The museum of the Teruel-Dinópolis Paleontological Complex. Communication of the paleontological heritage around the world of dinosaurs.

Unit 3. Fossils as elements of the Historical, Cultural and Natural Heritage. Legislation applied to movable paleontological heritage. European, national and regional legislation. Legislation on museums.



Unit 4. Dynamics and management of paleontological collections. Cataloging and inventory standards in naturalist museums. Preventive conservation. Code of ethics. Preparation, conservation and restoration of natural specimens: methods and experiences. The value of molds as a didactic and scientific instrument.

Unit 5. Diffusion and dissemination: strategic elements for conservation and research. Scientific research in museums. Communication in museums: Social function. Communication in other centers (interpretation centers, exhibitions, museum collections, private collections, university collections, etc.).

Unit 6. Museology and Museography. Design and organization of exhibitions. Elaboration of projects in Museography. Virtual didactic museography. Paleontological sites and potential for use: movable and immovable heritage. Projects for the communication of paleontological heritage.

WORKLOAD

ACTIVITY	Hours	% To be attended
Other activities	12,00	100
Laboratory practices	10,00	100
Theory classes	6,00	100
Seminars	2,00	100
TOTAL	30,00	

TEACHING METHODOLOGY

Theoretical-practical classes:

- Basic competences: CB6, CB7, CB8, CB9, CB10
- General competences: CG1, CG2, CG3, CG5, CG6, CG7
- Transversal competences: CT1, CT4, CT5
- Methodology:
 - Participative master classes with computer presentations:
 - Personal work in person of practical cases of Museology and Museography
 - Participation in various heritage dissemination projects.
 - Exhibition and public defense of group work

Laboratory-cabinet practice classes:



- Basic competences: CB6, CB7, CB8, CB9, CB10
- General competences: CG1, CG2, CG3, CG5, CG6, CG7
- Transversal competences: CT01, CT04, CT05
- Methodology:
 - Introduction and planning of each practice. Proposed practices:
 - Management of paleontological collections: Identification, signage, registry, databases, techniques basic preventive conservation. Basic molding and replicating techniques. Elaboration of molds and replicas.
 - Design of the Exhibition Project of a temporary or traveling exhibition.
 - Valuation of museological and museographic contents in museums or exhibitions paleontological of the Valencian Community.
 - Design and development of projects in Museology and Museography
 - Practical cases in Museum Management and Movable Heritage.

Seminars:

- Basic competences: CB6, CB7, CB8, CB9, CB10
- General competences: CG1, CG2, CG3, CG5, CG6, CG7
- Transversal competences: CT03
- Methodology:
 - Attendance at conferences and theoretical-practical seminars of specialists that complement the training received in other subjects
 - Communication of heritage outside our borders. Cases of interest.
 - Visits to other Museums and interpretation centers (physical and virtual visits)
 - Preparation of various materials and documents in theoretical-practical activities

EVALUATION

- Final work (and presentation) that can be done individually or in groups throughout the semester for the evaluation of the technical skills of the subject. The contribution to the final grade may not exceed 70% of the total grade.



- Continuous evaluation 30%
- Attendance and use of classes

REFERENCES

Basic

- Castellanos, P. (2008). Los Museos de ciencias y el consumo cultural: Una mirada desde la comunicación. Ed. UOC. 230 pp.
- Rico, J.C. (2006). Manual práctico de museología, museografía y técnicas expositivas. Ed. Silex. 253 pp.
- Roigé, X. (2014). Los Museos de la Ciencia en España: entre la Divulgación Científica, el Consumo Cultural y la Creación de Nuevos Referentes Sociales. *International Journal of Deliberative Mechanisms in Science*, 3(1), 49-72. doi:10.4471/demesci.2014.14
Link: <http://dx.doi.org/10.4471/demesci.2014.14>
- VV. AA. (1996). Museums for the new millenium. A Symposium for the museum community. Washington D.C. Smithsonian Institution. The American Asociation of Museums.
- VV. AA. (2000). Exploring Science in Museums. Ed. Susan Pearce. 224 pp.
- VV. AA. (2005). Museología de la ciencia: 15 años de experiencia. Joan Santacana y Núria Serrat Antolí (Coords.). Ed Ariel. 653 pp.
- VV. AA. (2013). Museos y colecciones de Historia Natural. Investigación, educación y difusión. González Bueno, A. y Baratas Díaz, A., (Eds). *Memorias de la RSEHN. Segunda Época, Tomo XI*. 422 pp.
- Alcalá, L., 2005. Los museos y la nueva proyección social de la Paleontología. *Boletín RSEHN (sec.Geol.)* 100(1-4) pp.289-306

Additional

- Boletín de la RSEHN: Sección Aula, Museos y Colecciones.
- Fernández-Martínez, E., Barbadillo Escrivá de Romaní, P., Castaño de Luis, R., Marcos Reguero, A., Preciado González, J.M. & Serrano Gómez, E. (2012). *Geoturismo en la ciudad de Burgos una guía de geología urbana para todos los públicos*. Ayuntamiento de Burgos, 101 pp.
- Lacomba, J. (2015). Manual de ayuda para trabajos de estratificado, moldeo y colada con Composites. Glaspol Composites (Eds.).
- Morales Miranda, J. (2001): *Guía práctica para la interpretación del Patrimonio*. Sevilla. Junta de Andalucía. Consejería de Cultura.