

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

Code	43248
Name	Paleodiversity and vertebrate evolution
Cycle	Master's degree
ECTS Credits	3.0
Academic year	2019 - 2020

Study (s)

Degree	Center	Acad. year	Period
2148 - M.D. in Biodiversity: Conservation and Evolution	Faculty of Biological Sciences	1	Second term

Subject-matter

Degree	Subject-matter	Character
2148 - M.D. in Biodiversity: Conservation and Evolution	5 - Cross-disciplinary optional subject areas 1	Optional

Coordination

Name	Department
MARTINEZ PEREZ, CARLOS	356 - Botany and Geology
MONTOYA BELLO, PLINIO	356 - Botany and Geology
RUIZ SANCHEZ, FRANCISCO JAVIER	356 - Botany and Geology

SUMMARY**English version is not available**

Esta asignatura, con carácter teórico-práctico, se imparte en el segundo cuatrimestre del máster. En ella se proporciona una visión sintética del registro fósil de los principales grupos de vertebrados, entre ellos los homínidos. Se aporta información sobre los procesos de conservación que han dado lugar a su rico y diverso registro, y se introduce al alumno en el conocimiento de la evolución morfológica de los vertebrados, así como de los principales hechos de su historia paleobiogeográfica. Por último, se proporcionará información sobre los principales yacimientos de vertebrados del registro fósil de la Península Ibérica y, especialmente, de la Comunidad Valenciana.



La parte práctica incluye visitas a museos (como el Museo de Ciencias Naturales de Valencia, el Museo Paleontológico de Elche, o Dinópolis en Teruel) y, a ser posible, visita a algún yacimiento paleontológico de vertebrados en proceso de excavación. También se trata la observación y significado funcional de los principales caracteres morfológicos de huesos y dientes, así como la interpretación de la información tafonómica. Además, se abordan las técnicas de excavación, preparación y conservación de los fósiles de vertebrados, incluyendo el tratamiento de muestras de sedimento para la obtención de microvertebrados. De este modo, el alumno obtendrá conocimiento sobre las principales técnicas de recuperación de vertebrados fósiles. Así mismo, se da importancia a la asistencia a conferencias y seminarios relacionados con la asignatura.

PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

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

Other requirements

OUTCOMES

2148 - M.D. in Biodiversity: Conservation and Evolution

- 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.
- To acquire basic skills to develop laboratory work in biomedical research.
- Be able to make quick and effective decisions in professional or research practice.
- 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.
- Be able to access to information tools in other areas of knowledge and use them properly.
- 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.



- Favour intellectual curiosity and encourage responsibility for one's own learning.
- Encourage ethical commitment and environmental awareness.
- Be able to communicate and disseminate scientific ideas.

LEARNING OUTCOMES**English version is not available****WORKLOAD**

ACTIVITY	Hours	% To be attended
Theory classes	20,00	100
Laboratory practices	10,00	100
Attendance at events and external activities	2,00	0
Development of group work	5,00	0
Development of individual work	4,00	0
Study and independent work	8,00	0
Readings supplementary material	4,00	0
Preparation of evaluation activities	10,00	0
Preparing lectures	6,00	0
Preparation of practical classes and problem	4,00	0
Resolution of case studies	2,00	0
TOTAL	75,00	

TEACHING METHODOLOGY**English version is not available****EVALUATION****English version is not available**



REFERENCES

Basic

- Benton, M.J. 1995. Paleontología y Evolución de los Vertebrados. Editorial Perfls, Lleida, 369 p.
- Carroll, R.L., 1988. Vertebrate Paleontology and evolution. W.H. Freeman and Company, New York.
- Janvier, P. 1996. Early Vertebrates. Oxford Monographs on Geology and Geophysics, 33. Oxford: Clarendon Press, 393 p.
- Long, J.A. 1995. The Rise of Fishes: 500 Million Years of Evolution. Johns Hopkins University Press, Baltimore, 223 pp.
- Lyman, R.L. 1994. Vertebrate Taphonomy. Cambridge University Press, 524 p.
- Szalay, F.S. & Delson, E. 1979. Evolutionary history of the primates. Academic Press, Inc., San Diego, 580 p.
- Weishampel, D.B., Dodson, P. & Osmólska, H. (eds.) (2nd ed.) 2004. The Dinosauria. University of California Press, Berkeley, 862 p.

Additional

- Agustí, J. & Antón, M. 2002. Mammoths, Sabertooths, and Hominids. 65 million years of mammalian evolution in Europe. Columbia University Press, New York, 313 p.
- Belinchón, M., Peñalver, E., Montoya, P. & Gascó, F. 2009. Crónicas de Fósiles. Las colecciones paleontológicas del Museo de Ciencias Naturales de Valencia. Ayuntamiento de Valencia, 544 p.
- Lockley, M.G. 1993. Siguiendo las huellas de los dinosaurios. McGraw-Hill/Interamericana de España, Madrid, 307 p.

ADDENDUM COVID-19

This addendum will only be activated if the health situation requires so and with the prior agreement of the Governing Council

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