VNIVERSITAT DE VALÈNCIA

Course Guide
43264 Paleodiversity and plant evolution

COURSE DATA

Data Subject	
Code	43264
Name	Paleodiversity and plant evolution
Cycle	Master's degree
ECTS Credits	3.0
Academic year	2018 - 2019

Study (s)

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

Subject-matter

Degree	Subject-matter	Character
2148 - M.D. in Biodiversity: Conservation and Evolution	9 - Cross-disciplinary optional subject areas 2	Optional

Coordination

Name	Department
VALENZUELA RIOS, JOSE IGNACIO	200 - Geology

SUMMARY

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La asignatura "Paleodiversidad y Evolución Vegetal" muestra la evolución histórica del Reino Plantae, con énfasis en los principales hitos como el origen y la posterior evolución de los principales grupos de plantas y sus interrelaciones. Al ser una asignatura pluridisciplinar, desarrollada en la Facultad de Biología e impartida por el Departamento de Geología, se hará especial hincapié en los aspectos biológicos y geológicos a la aproximación paleobotánica. Esta combinación permite establecer el momento en que los principales grupos de plantas se originaron, el momento en que cada uno de ellos alcanzó su máxima diversidad y, en el caso de algunos grupos, cuando se extinguieron.

Los aspectos tafonómicos y de reconstrucción de la planta completa a partir de las partes desarticuladas son relevantes. Otros aspectos sobre los que se incidirá en este curso son: 1) La evolución de los grupos de plantas; 2) Aportaciones de las plantas a la Bioestratigrafía y Correlación; 3) La paleoecología y la evolución de los paleoambientes mediante el estudio de la paleovegetación; 4) Determinación de paleoclimas a partir de las plantas fósiles.

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 access the information required (databases, scientific articles, etc.) and to interpret and use it sensibly.
- Be able to communicate and disseminate scientific ideas.

LEARNING OUTCOMES

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WORKLOAD

ACTIVITY	Hours	% To be attended
Theory classes	20,00	100
Laboratory practices	10,00	100
Development of individual work	10,00	0
Study and independent work	8,00	0
Readings supplementary material	15,00	0
Resolution of case studies	12,00	0
TOTAL	**75,00**	

TEACHING METHODOLOGY

English version is not available

EVALUATION

English version is not available

REFERENCES

Basic

- Stewart, W. N. (1983). Paleobotany and the Evolution of Plants. Cambridge University Press, New York. 405 p.
- Thomas, B. A. & Spicer, R. A. (1987). The Evolution and Palaeobiology of Land Plants. Croom Helm, London (Dioscorides Press, Portland, OR). 309 p.
- Taylor, E., Taylor, T & Krings, M. Paleobotany. The Biology and Evolution of Fossil Plants. Elsevier, Academic Press. 1230 p.

Additional

- Emberger, L. (1968). Les Plantes Fossiles dans leurs rapports avec les Végétaux Vivantes (Élements de Paléobotanique et de Morphologie Comparée). Masson et CIE, Paris. 758 p.
- Cleal, C. J. & Thomas, B. A. Fossils illustrated. Plant fossils. Boydell Press.
- Erwin, D. H. The great paleozoic crisis. Critical moments in paleobiology and earth history series.

- Bradley, R. S. Paleoclimatology. Reconstructing climates of the Quaternary. International geophysics series, volume 64. Hardcourt Academic Press