COURSE DATA

DATA SUBJECT

Code: 46748
Name: Projects and independent work in palaeontology
Cycle: Master's Degree
ECTS Credits: 3
Academic year: 2025-26

STUDY (S)

Degree	Center	Acad. year	Period
2266 - Master's Degree in Applied Palaeontology	Facultat de Ciències Biològiques	1	Second quarter

SUBJECT-MATTER

Degree	Subject-matter	Character
2266 - Master's Degree in Applied Palaeontology	Management of palaeontological heritage	ELECTIVES

COORDINATION

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SUMMARY

Once the Master is finished, the student who chooses the professional branch of this Master should be able to generate a series of documents of an eminently technical nature that allowed him to develop his professional work. These documents include those corresponding to environmental impact studies, projects of all kinds (paleontological actions, dissemination projects, etc.), which makes it necessary for you to know in detail what a project, report, and be able to organize and develop it from the initial stages to the final stages, for example before companies or public administration.

On the other hand, the student must be able to establish adequate knowledge of the professional reality in the fiscal, tax and Social Security aspects. This should allow you to develop in a context of competence and adequate knowledge of the requirements that as a professional worker you will have in front of the Public Treasury (taxes, periodic reports, etc.) and the Spanish Social Security administration.

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 curriculum.

COMPETENCES / LEARNING OUTCOMES

2266 - Master's Degree in Applied Palaeontology

Access information tools from other areas of knowledge and use them appropriately.

Access the necessary information in the specific field of the subject (databases, scientific articles, etc.) and have sufficient judgement to interpret and use it.

Apply critical reasoning and argumentation based on rational criteria.

Apply science from a social and economic point of view, promoting the transfer of knowledge to society.

Apply the knowledge acquired and problem-solving abilities in new or unfamiliar situations within broader (or multidisciplinary) contexts related to the field of study.

Apply the research experience acquired to tasks specific to the profession, both in the private sector and in public institutions.

Assess the need to complement their scientific, historical, language, IT, literature, social and human ethics education by attending lectures or courses and/or carrying out complementary activities, self-evaluating the contribution that these activities make to their overall education.

Assume an ethical commitment and sensitivity towards environmental problems and natural and cultural heritage.

Be familiar with, develop and manage georeferenced databases of elements from the geological and palaeontological record, as well as the software used for the spatial representation and analysis of these elements.

Communicate and popularise scientific ideas.

Communicate conclusions and the knowledge and rationale supporting them to specialised and non-specialised audiences clearly and unambiguously.

Conduct studies, applying the methods and techniques needed to preserve and manage palaeontological heritage.

Continue the learning process in a manner that is largely self-directed or independent.

Demonstrate in-depth understanding of the historical nature of the evolutionary process, both in its aspects of unrepeatability and contingency and in those linked to the fulfilment of laws of nature of all kinds and, therefore, of necessity.

Demonstrate intellectual curiosity and encourage responsibility for one's own learning.

Demonstrate knowledge and understanding of the legal foundations for the protection and conservation of palaeontological heritage at the level of the EU, Spain and the Spanish Autonomous Communities.

Develop experimental skills in the handling of laboratory material and equipment in palaeontology.

Have an in-depth knowledge and understanding of the regional geology of Spain and surrounding areas, particularly the Valencian Community, with detailed knowledge of the main palaeontological sites found in the Iberian Peninsula and North Africa.

Integrate knowledge and confront the complexity of making judgements based on information that, although incomplete or limited, includes reflections on the social and ethical responsibilities linked to the application of knowledge and judgements.

Know, understand and draw conclusions, applicable to the present time, about the crises of biological diversity, and their causes and consequences within the framework of actualism.

Know and understand the palaeodiversity of living beings, their ecosystemic relationships and the palaeogeographical distribution achieved by the main groups of living beings throughout the Earth's history.

Learn about the techniques used in museums for the management of palaeontological heritage, identifying, during guided work visits, successful examples in the field of palaeontology (Dinópolis, the Catalan Institute of Palaeontology, the Palaeontological Museum of Elche).

Make quick and effective decisions in complex situations in their professional or research work, by developing new and innovative work methodologies adapted to the scientific/research, technological or professional field in which they carry out their activity.

Plan and manage available resources, taking into account the basic principles of quality, risk prevention, safety and sustainability.

Prepare, write and present reports and projects in public in a clear and coherent manner, defend them with rigour and tolerance and respond satisfactorily to any criticism that may arise from the presentation.

Produce all types of reports related to palaeontological matters clearly and concisely at an official or professional level (reports, grants, heritage impact reports, research projects, etc.)

Skillfully handle the field, laboratory and office techniques for the extraction, preparation, cataloguing, digital reconstruction, study and dissemination of microfossils and macrofossils.

Use acquired knowledge as a basis for originality in the development or application of ideas, often in a research context.

Work efficiently in a professional or research team, acquiring the ability to participate in research projects and scientific or technological collaborations.

DESCRIPTION OF CONTENTS

1. Introduction and general concepts

Unit 1.- Introduction to the concepts of Prospecting vs paleontological excavation: administrative aspects.

Unit 2.- Elaboration of a paleontological prospecting / excavation request report

2. Legislative framework and protection of paleontological values

Unit 3.- The professional development of Paleontology. Regulatory framework at the level of the Spanish State. Professional competences of biologists and geologists in relation to the field of activity of paleontology. Functions performed by the members.

Unit 4.- Competences in the field of Paleontology at the different levels of the Spanish public administration (local, autonomous, state). Public administration of the Valencian Community-competences in Paleontology. Areas of work in the public administration and as free professionals. Competency areas in Cultural Heritage and Natural Heritage. Brief notions on legislation of Historical Heritage (Cultural Heritage) and Natural Heritage (Geodiversity).

Unit 5.- Preparation and management of projects. Methodologies.

Unit 6.- Environmental impact. Documents and projects: Environmental impact studies (EIA), Patrimonial incidence reports, Territorial planning instruments. Monitoring of actions in the natural environment.

Unit 7.- Paleontological actions. Direction of actions. Regulation at the regional level (CV), inventory of deposits.

3. Practical module

Unit 8.- Examples of Actions to enhance the paleontological heritage.

Unit 9.- Procedures for Environmental Impact Assessment and paleontological heritage.

Unit 10.- Preparation of a paleontological report.

Unit 11.- Elaboration of a memory of patrimonial incidence in an area of the natural environment.

4. Seminars-Conferences

Seminar 1.- Conference on professional competences of the paleontologist profession. The case of the paleontology-based company Transmitting Science.

Seminar 2.- Conference on professional competences of the paleontologist profession. The case of the paleontological-based company Paleoymas SLL.

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Theory	12,00
Seminar	8,00
Classroom practices	10,00
Total hours	**30,00**

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	0,00
Independent study and work	0,00
Preparation of lessons	0,00
Preparation for assessment activities	0,00
Resolution of case studies	0,00
Total hours	**0,00**

TEACHING METHODOLOGY

• **Theoretical-practical classes:**

- Master classes with computer presentations

- Face-to-face personal work on practical cases

- Drafting of reports with the teacher's guidance on practical cases

- Exhibition and public defense of the work carried out individually and in groups

• **Laboratory-cabinet practical classes:**

- Introduction and planning of each practice

- Making observations, data collection, information gathering

- Assessable individualized work:

• Preparation and consultation of databases with the teacher's guidance

• Preparation of reports

• **Seminars:**

-Attendance at conferences and theoretical-practical seminars of specialists that complement the training received in other subjects

- Preparation of various materials and documents in theoretical-practical activities

- Assessable individualized work:

• Preparation of reports on exposed content

• Preparation of reports

EVALUATION

The evaluation of the theoretical and practical aspects of the subject will be carried out through written tests, individually or in groups, throughout the semester for the continuous evaluation of the technical competences of the subject, in which questions of a theoretical nature will be asked. and related to practical assumptions. In the continuous evaluation, the attendance and use of the classes will also be taken into account. This evaluation will be complemented with the final written test, individually, of the subject.

The seminars will be valued according to the attendance and participation of the student in the discussion. From the seminars carried out, the student will prepare a report in which they show their ability to synthesize and interrelate the concepts discussed.

The work of the laboratory-cabinet practices will be evaluated by means of the qualification of a Report carried out individually, or in very small groups, dealing with the application of a practical case.

The weight (percentage of the final grade) of the aspects considered in the evaluation of the subject are reflected in the following table:

Evaluation Activities

Practical work and reports 60%

Laboratory-cabinet practices 15%

Continuous evaluation 25%

REFERENCES

- Carcavilla, L., López, J., Durán, J. 2007. Patrimonio geológico y geodiversidad: Investigación, conservación, gestión y relación con los espacios naturales protegidos Publicaciones del Instituto Geológico y Minero de España. Serie Cuadernos del Museo Geominero,7: 360 pp. - Lock, D. Fundamentos en la gestión de proyectos. Ediciones AENOR. Madrid 2003. - Pereña, J. Dirección y gestión de proyectos. Editorial Díaz de Santos 1996. - Viñoles, R. Programación y Control de Proyectos con Microsoft Project. UPV Servicio de Publicaciones. Valencia 2009.

- Bruschi, V.M. 2007. Desarrollo de una metodología para la caracterización, evaluación y gestión de los recursos de la geodiversidad. Tesis doctoral. Universidad de Cantabria. - Robles, F., de Renzi, M., Montoya, P. y Belinchón, M. 1999. La paleontología y la Ley del Patrimonio Cultural valenciano: Propuestas y resultados. Coloquios de Paleontología, ISSN 1132-1660, Nº 50, 1999, págs. 37-44. - Ruiz-Sánchez, F.J. 2005. La legislación de medio ambiente y la protección del patrimonio paleontológico en la Comunidad Valenciana (España). Revista española de paleontología, ISSN 0213-6937, Nº. Extra 10, 2005 (Ejemplar dedicado a: XIX Jornadas de Paleontología : "Flora y faunas del Mesozoico: paleoecología y paleoclimatología"), págs. 119-124