



IDENTIFYING DATA

CAD Techniques to Present Heritage

Subject	CAD Techniques to Present Heritage			
Code	O02M143V03107			
Study programme	(*)Máster Universitario en Valoración, xestión e protección do patrimonio cultural			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	3	Mandatory	1st	1st
Teaching language	Spanish Galician			
Department				
Coordinator	Armesto González, Julia			
Lecturers	Armesto González, Julia Patiño Cambeiro, Faustino			
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General description	(*)Esta materia ofrece unas nociones fundamentales sobre los sistemas de representación gráfica y su aplicación en la representación de bienes patrimoniales tanto a través de sus vistas como de otros métodos de proyección. Asimismo proporciona una introducción a las herramientas de software para poder generar planos y documentos de representación gráfica a escala considerando unas pautas básicas recogidas en normas ESO. Objetivos: Gestionar y elaborar documentación geomática de los bienes patrimoniales. Documentar las características físicas, formales y el estado de conservación del patrimonio cultural inmueble y su entorno inmediato.			

Competencies

Code	
A2	That students know how to apply the knowledge acquired and their ability to solve problems in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their area of study.
B2	Acquire the necessary knowledge to handle the different tools of graphic, dimensional and geospatial documentation to be applied in the documentation and valuation of Cultural Heritage.
C5	Master and be able to apply instruments and procedures of various cartographic techniques to the real cultural heritage for its dimensional control and the elaboration of graphic documentation using CAD tools.
C6	Analyze, refine and interpret geographic information, as well as its storage in databases, based on technical requirements for the inventory and documentation of an intervention project.
D4	To be able to integrate the diverse information and data contributed by diverse technicians and tools in the writing of conclusions of action.
D8	Acquire advanced knowledge and demonstrate, in a context of scientific and technological research or highly specialized, a detailed and substantiated understanding of the theoretical and practical aspects and the methodology of work in one or more fields of study.

Learning outcomes

Expected results from this subject	Training and Learning Results			
Realize calculations with scales, interpret views and flats	A2	B2	C5 C6	D4 D8
Elaborate graphic documentation where represent the cultural heritage (plans 2D, models 3D) employing tools CAD	A2	B2	C5 C6	D4 D8

Contents

Topic

Introduction to CAD representation	<ul style="list-style-type: none"> - Concept of drawing and drawing to scale. - Standardization in the edition of plans: formats, folding, scale, drawing area, labeling, lines..
Representation systems	<ul style="list-style-type: none"> - Fundamentals of representation systems: Dihedral, Dimensioned Plans, Axonometric, Conical. - Interpretation of pieces in isometric; obtaining views; basics of dimension - Reading and interpretation of plans in System of Dimensioned Plans
CAD software	<ul style="list-style-type: none"> - Fundamentals: interface, formats, units and drawing spaces - Tools for CAD delineation and assistance with drawing - Creation of texts in CAD - Introduction and scaling of orthophotos in CAD - Tools for editing plans: work with graphic windows. Printing in CAD.

Planning

	Class hours	Hours outside the classroom	Total hours
Lecturing	4	0	4
Case studies	0	18	18
Problem solving	0	19	19
Autonomous problem solving	0	30	30
Seminars	1	0	1
Introductory activities	1	0	1
Problem and/or exercise solving	0	1	1
Systematic observation	0	1	1

*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

Methodologies

	Description
Lecturing	Exhibition of the main theoretical contents of the subject with the help of audiovisual media. Students will have the possibility of attending this session in the form of a videoconference.
Case studies	Analysis of a problem or real case, in order to know it, interpret it, solve it, generate hypotheses, diagnose it and go into alternative solution procedures, to see the application of theoretical concepts in reality. They will be used as a complement to the theoretical classes for self-learning.
Problem solving	Activities in which problems and / or exercises related to the subject are formulated.
Autonomous problem solving	The student must develop autonomously the analysis and resolution of problems and / or exercises.
Seminars	Realization of group and personalized tutorials, organization of forums, chats, debates, wikis, etc.
Introductory activities	Activities aimed at making contact and gathering information about the students, as well as presenting the subject. The file of the subject, objectives, calendar, evaluation criteria will be presented, as well as discussion forums and news and other environments in which the learning will unfold.

Personalized assistance

Methodologies	Description
Problem solving	Personal attention for solving problems
Tests	Description
Problem and/or exercise solving	Personal attention for solving problems

Assessment

	Description	Qualification	Training and Learning Results
Problem and/or exercise solving	Jobs and Remote Delivery Projects	80	A2 B2 C5 D4 C6 D8
Systematic observation	Active participation through the telematic means	20	A2 B2 C5 D4 C6 D8

Other comments on the Evaluation

Sources of information

Basic Bibliography

Complementary Bibliography

Recommendations

