



## IDENTIFYING DATA

### CAD Techniques to Present Heritage

Subject	CAD Techniques to Present Heritage			
Code	O02M143V03107			
Study programme	Máster Universitario en Valoración, Gestión y Protección del 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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Web	<a href="http://moovi.uvigo.gal/course/view.php?id=1065">http://moovi.uvigo.gal/course/view.php?id=1065</a>			
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.			

## Training and Learning Results

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.

## Expected results from this subject

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

## Planning

	Class hours	Hours outside the classroom	Total hours
Lecturing	4	0	4
Case studies	0	18	18
Problem solving	0	18	18
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
Objective questions exam	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	Essays and Remote Delivery Projects	40	A2 B2 C5 D4 C6 D8

Systematic observation	Active participation through the telematic means	20	A2	B2	C5	D4
Objective questions exam	Test that includes closed questions with different answer alternatives (true/false, multiple choice, pairing of elements...). Students select an answer from a limited number of possibilities.	40	A2	B2	C6	D8
					C5	D4
					C6	D8

### Other comments on the Evaluation

According to the 2023 "Regulation on the evaluation, qualification and quality of teaching and the student learning process of the University of Vigo", there are two evaluation systems that students can choose: the preferred one, which will be applied by default, of "**continuous evaluation**" (diversified tests and activities that take place throughout the semester), and the so-called "**global evaluation**" (tests and/or delivery of work/exercises to be carried out on the official dates of evaluation established in the academic calendar), which must be expressly requested by the interested students, and communicated to the responsible teaching staff within a maximum period of 31 days from the beginning of each term.

The "**global evaluation**" tests for this subject will consist as follows: objective questions test (50%), problems and/or exercises solving (50%).

Students have two evaluation calls/opportunities. The first is carried out during the teaching semester. The second (or 2nd opportunity) will take place in the month of July, for which access to the teaching platform will be enabled again.

### Sources of information

#### Basic Bibliography

#### Complementary Bibliography

### Recommendations

### Other comments

The teaching of the subject will be always of face-to-face telematic way, well was synchronous or asynchronous, using the eMoodle (MooVi) educational platform and participating in the educational activities through multiple videoconference (e-meeting, Remote Campus).

To be able to receive the teaching of effective way it is recommended, previously to the start of the subject, to consult the manual of access to the platform and to follow the technical specifications in order to assist to the remote sessions. It is indispensable that each student access to the educational platform of the subject previously to the beginning of the same.