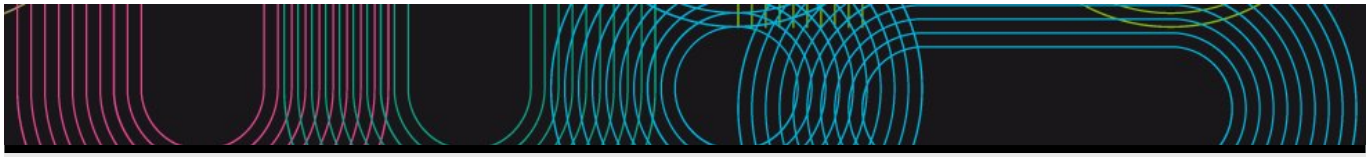

IDENTIFYING DATA				
GIS Technologies for Inventory of Cultural Assets				
Subject	GIS Technologies for Inventory of Cultural Assets			
Code	O02M143V03108			
Study programme	Máster Universitario en Valoración, Gestión y Protección del Patrimonio Cultural			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	3	Mandatory	1st	1st
Teaching language	#EnglishFriendly Spanish Galician			
Department				
Coordinator	Solla Carracelas, María Mercedes			
Lecturers	Lagüela López, Susana Núñez Nieto, Xavier Solla Carracelas, María Mercedes			
E-mail	merchisolla@uvigo.es			
Web	http://moovi.uvigo.gal/course/view.php?id=1066			
General description	This course aims to train students to manage large amounts of documentary data in various formats, so that they cooperate in the common task of managing cultural heritage. Its basic role is to provide students with the theoretical and methodological knowledge necessary for the design of databases as well as for the management and writing of metadata. English Friendly subject: International students may request from the teachers: a) resources and bibliographic references in English, b) tutoring sessions in English, c) exams and assessments in English.			

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
Manage big quantities of documentary data in diverse formats, so that they cooperate in the labor common of management of the cultural heritage	A2 B2 C5 C6 D4 D8

Capacity for the design of databases, cartography, as well as for the management and writing of metadata	A2 B2 C5 C6 D4 D8

Contents	
Topic	
Introduction to GIS. Fundamentals and Applications.	- Concept of GIS. - Differences between GIS, database and CAD. - Types of models in GIS. - Geographic and spatial information.
GIS application to the management and conservation of the Heritage.	- Introduction to the software QGis - Analysis of real cases. - Raster databases. - Vectorial databases. - The GIS web (IDS-GIS).
Development of a GIS project.	- Design of a GIS project and generation of databases. - Geoprocessing of the data. - Thematic cartography.
Models of information of the construction (BIM).	- Introduction to the BIM. - Models of information of historical constructions (H-BIM).

Planning			
	Class hours	Hours outside the classroom	Total hours
Introductory activities	0.5	1	1.5
Seminars	0.5	1	1.5
Lecturing	3	5	8
Case studies	2	24	26
Case studies	0	5	5
Case studies	0	5	5
Essay	0	26	26
Objective questions exam	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
Introductory activities	Session oriented to take contact and gather information on the students and their motivations. Presentation of the matter, contents and methods of assessment.
Seminars	Resolution of doubts through debate and discussion in the TIC environment and online sessions in a group
Lecturing	Activities of application of the knowledge acquired by the students to particular situations in an autonomous mode.
Case studies	Analysis of real cases dealing with the management of the cultural heritage.

Personalized assistance	
Methodologies	**Description**
Lecturing	Resolution of doubts and personalized attention. Resources used: platform of teledocencia (Moodle) and videoconference and meeting.
Case studies	Resolution of doubts and personalized attention. Resources used: platform of teledocencia (Moodle) and videoconference and meeting.

Assessment				
	Description	Qualification	Training and Learning Results	
Case studies	Proof in the didactic units 2 and 3 in which a situation or problem is already presented or that may occur, based on the different factors involved, the analysis of the background, conditions, situation, etc. The evaluated learning outcomes refer to the capacity for the design of databases, cartography, as well as for the management and writing of metadata.	20	A2 B2 C5 C6 D4 D8	

Case studies	Proof in the didactic unit 4 in which a situation or problem is already presented or that may occur, based on the different factors involved, the analysis of the background, conditions, situation, etc. The evaluated learning outcomes refer to the capacity for the design of databases, cartography, as well as for the management and writing of metadata.	20	A2	B2	C5 C6	D4 D8
Essay	The student presents the result obtained in the preparation of a document on the thematic of the matter, in the preparation of seminars, investigations, memories, essays, summaries of readings, conferences. The results of learning evaluated are the capacity to manage big quantities of documentary data in diverse formats, so that they cooperate in the common work of management of the cultural heritage.	40	A2	B2	C5 C6	D4 D8
Objective questions exam	Test in the didactic unit 1 of objective theoretical questions (multiple choice or short answer) in which students have to demonstrate their understanding of the more theoretical contents of the subject.	10	A2	B2	C5 C6	D4 D8
Objective questions exam	Test in the didactic unit 5 of objective theoretical questions (multiple choice or short answer) in which students have to demonstrate their understanding of the more theoretical contents of the subject.	10	A2	B2	C5 C6	D4 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 exam (20%), case studies (40%), and essay (40%).

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

Victor Olaya, **Sistemas de Información Geográfica**, Cuadernos internacionales de tecnología para el de, 2009

Complementary Bibliography

J. Gutiérrez Puebla, M. Gould,, **SIG: Sistemas de Información Geográfica**, Editorial Síntesis,

M. Domínguez, M. Belda, **Topografía y sistemas de información geográfica**, Universidad Nacional de Educación a Distancia,

F.J. Moldes, **Tecnología de los Sistemas de Información Geográfica**, RA-MA Editorial,

I. Otero Pastor,, **Paisaje, Teledetección y SIG. Conceptos y aplicaciones.**, Fundación Conde del Valle de Salazar,

G.D. Buzai, **Sistemas de Información Geográfica (SIG) y Cartografía Temática. Métodos y técnicas para el trabajo en el aula**, Lugar Editorial,

Recommendations

Subjects that it is recommended to have taken before

(*)Introducción á topografía e produción cartográfica/O02M143V03111
2D and 3D Cartographic Documentation Techniques for Cultural Heritage/O02M143V03109
CAD Techniques to Present Heritage/O02M143V03107

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 (Remote Campus).
To be able to receive the teaching of effective way it si 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.