UNIVERSITY OF CAGLIARI
SCHOOL OF SPECIALISATION IN ARCHITECTURAL AND LANDSCAPE HERITAGE
aa.yy. 2022-23 and 2023-24

COURSE INFO

Professor
Emanuela Quaquero
Title of the course
HBIM
Scientific Disciplinary Sector
ICAR/11
Number of hours
30
Language
Italian
Objectives of the course
The course aims to transfer the foundations and tools of the Building Information Modeling paradigm to learners in order to make them protagonists of multidisciplinary interventions on the existing building heritage with particular reference to buildings of historical and architectural importance. The course will therefore focus on the theme of Heritage Building Information Modeling and on the strategies to connect the various specialized skills and then converge towards solutions of global quality and high efficiency of the rehabilitation and restoration interventions.
Any prerequisites
Good knowledge of the elements that make up the building and of architectural technologies. It is essential to be familiar with traditional 2D CAD and 3D CAD systems.
Topics and contents of the course
The course will be divided into a first phase in which the BIM methodology and the related effects on the construction sector will be presented with particular reference to the management and maintenance of buildings with a high historical-architectural value. From the discussion of the fundamental concepts and the reference legislation, the advantages that the implementation of the methodology allows to obtain in the different phases of the building process and in particular in the management, maintenance and restoration phase will be analyzed. The second phase of the course will focus on the presentation of the main features of the parametric modeling software chosen (Revit Autodesk) that will be used in order to develop the information model of the selected case study.
Methods of examination
Oral and Practice-laboratory test.
Essential bibliography
G.M. Di Giuda, S. Maltese, F. Re Cecconi, V.Villa*, Il BIM per la gestione dei patrimoni immobiliari. Linee guida, livelli di dettaglio informativo grafico (LOD) e alfanumerico (LOI),* HOEPLI, Milano 2017. C. Argiolas, R. Prenza, E. Quaquero, *BIM 3.0. Dal disegno alla simulazione. Nuovo paradigma per il progetto e la produzione edilizia*, Gangemi, Roma 2015. C. Eastman, P. Teicholz, R. Sacks, K. Liston, *Il BIM. Guida completa al Building Information Modeling per committenti, architetti, ingegneri, gestori immobiliari e imprese*, HOEPLI, Milano 2016. P.E. Giana, M. Schievano, F. Paleari, E. Seghezzi, *Introduzione al BIM. Protocolli di modellazione e gestione informativa,* Esculapio, Bologna 2019.
Further bibliographical information
Didactic materials
The slides will be made available.
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