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

COURSE INFO

Professor
Vincenzo Bagnolo
Title of the course
3D Survey Technologies for Cultural Heritage
Scientific Disciplinary Sector
ICAR/17
Number of hours
20
Language
Italian
Objectives of the course
The main objective is the learner acquire knowledge, skills, and competences in the field of architectural survey and representation. Acquisition of skills necessary for critical reading and understanding of historical architectural artefacts with reference to the knowledge and understanding of the relationship between representation, 3D digital survey and restoration. Knowledge and application of 3D digital technologies for the representation and communication of built heritage. Ability to critically evaluate the results of the survey project and its representation. Ability to express and communicate technical and scientific concepts in the field of 3D digital technologies for survey and representation. Ability to integrate knowledge from various sources to achieve a broad vision of the problems related to the survey and representation of historical assets with digital techniques.
Any prerequisites
Knowledge of the Fundamentals of Graphic Representation and Applications of Descriptive Geometry.
Topics and contents of the course
The course proposes the study and application of a methodology aimed at documenting and describing the built heritage using integrated survey procedures mainly based on terrestrial laser scanners (TLS). The program includes both the development of the theoretical approach and its practical application on a case study through group exercises. Starting from the acquisition of point clouds, a workflow will be developed for the creation of the main projections necessary for the drafting of a project. Lectures and laboratory teaching with group and individual exercises. Frontal lessons: 4 hours; survey campaign and laboratory: 16 hours.
Methods of examination
Practice-laboratory test.
Essential bibliography
M. Docci, D. Maestri, *Manuale di rilevamento architettonico e urbano*, Laterza Editore, Roma-Bari 2020.
Further bibliographical information
S.Bertocci, M. Bini, Manuale di rilievo architettonico e urbano, CittàStudi, Novara 2012. C. Cundari, *Il Rilievo architettonico. Ragioni. Fondamenti. Applicazioni*, Aracne, Roma 2012.
Didactic materials
Links to thematic articles published in open access will be made available.
External guests
The course includes seminars on in-depth topics.