

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

COURSE INFO

Professor
Andrea Frattolillo
Title of the course
Technical systems in historical buildings
Scientific Disciplinary Sector
ING-IND/11
Number of hours
20
Language
Italian
Objectives of the course
<p>The course provides the basic technical knowledge to address the energy, lighting and acoustic problems connected to the redevelopment of historic or architecturally constrained buildings. With particular reference to the most common construction and plant types in historic centers, possible actions aimed at containing energy needs will be analysed, including the use of innovative non-invasive technologies and renewable sources compatible with historic buildings.</p> <p>Students will be extremely sensitized to measurement techniques for verifying the passive acoustic requirements, with particular attention to the most recurring problematic aspects in compliance with the constraints associated with correct design. Finally, the main photometric and energy characteristics of the most suitable light sources and lighting bodies for urban elements of particular value will be analysed, deepening the knowledge of the functional aspects based on the needs of visual comfort, safety and redevelopment of spaces.</p>
Any prerequisites
No significant prerequisites.
Topics and contents of the course
Energy requalification interventions, verification of passive acoustic requirements and solutions for lighting comfort in architecturally constrained buildings.
Methods of examination
Oral.
Essential bibliography
G. Dall'O Giuliano, <i>Gli impianti nell'architettura e nel restauro</i> , UTET, Torino 2003. P. Palladino, <i>Manuale di illuminazione</i> , Tecniche Nuove, Milano 2005. Didactic material provided during the course.
Further bibliographical information
Didactic materials
Summary pdf and slides used during the course.
External guests
Experienced professionals in acoustic (Ing. Costantino C. Mastino -competent technician pursuant to the decree 42/2017) and in the lighting sector (Arch. Michele Schintu lighting designer).