

Structural damage and methods of intervention in historic constructions

This course aims to educate students in the study of monumental structures, and in particular in ways of evaluating the existing condition (pathology of the monument) and the possible choices among methods of intervention provided by contemporary technology. For the study of historic buildings it is important to acknowledge the way structures behave and to understand the origin and significance of damages. Only with a deep comprehension of both aspects can the engineer or architect make decisions on the techniques of conservation which could be used.

Students must acquire basic knowledge of the intervention methods (older and newer) to reinforce load-bearing masonry structures, in order to be able to choose for every case the optimum solution and method of intervention, respecting the constraints imposed by nature and the value of these structures. This objective is achieved by analyzing in depth the issues of structural damage and methods of intervention through examples, applied studies as well as the evolution of research in the relevant fields, which is the basis for the preparation of relevant work.