



UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Architettura		
ACADEMIC YEAR	2021/2022		
MASTER'S DEGREE (MSC)	ARCHITECTURE FOR THE SUSTAINABLE PROJECT IN THE BUILT ENVIRONMENT		
INTEGRATED COURSE	RESTORATION AND ARCHITECTURAL DESIGN IN THE BUILDING WORKSHOP - INTEGRATED COURSE		
CODE	21639		
MODULES	Yes		
NUMBER OF MODULES	2		
SCIENTIFIC SECTOR(S)	ICAR/19, ICAR/14		
HEAD PROFESSOR(S)	SBACCHI MICHELE	Professore Ordinario	Univ. di PALERMO
OTHER PROFESSOR(S)	SBACCHI MICHELE	Professore Ordinario	Univ. di PALERMO
	TOMASELLI FRANCESCO	Professore Ordinario	Univ. di PALERMO
CREDITS	14		
PROPAEDEUTICAL SUBJECTS			
MUTUALIZATION			
YEAR	2		
TERM (SEMESTER)	1° semester		
ATTENDANCE	Mandatory		
EVALUATION	Out of 30		
TEACHER OFFICE HOURS	SBACCHI MICHELE Wednesday 16:00 18:00 Stanza 115 TOMASELLI FRANCESCO Wednesday 10:00 14:00 viale delle Scienze, ed. 8, scala F2, piano terra.		

DOCENTE: Prof. MICHELE SBACCHI

PREREQUISITES	Ability to make architectural design projects and to intervene on existing built contexts. Critical perception of the role of architecture. Knowledge of history of architecture
LEARNING OUTCOMES	Knowledge and comprehension skill Knowledge of concepts like modification, type, character, sustainability in order to study spatial contexts Ability to apply knowledge Ability to use own background to peculiar design cases Judgement autonomy Critical attitude towards projects and built environment Communication skills Ability to show effectively his own work and its reasons
ASSESSMENT METHODS	Oral exam - Presentation of design work
TEACHING METHODS	Lectures and studio work

MODULE ARCHITECTURAL RESTORATION - STUDIO

Prof. FRANCESCO TOMASELLI

SUGGESTED BIBLIOGRAPHY

FEIFFER C., Il progetto di conservazione, Franco Angeli, Milano, 1997.
 FEIFFER C., La conservazione delle superfici intonacate, Skira, Milano, 1997.
 L. LAZZARINI, M. LAURENZI TABASSO, Il restauro della pietra, Cedam, Padova, 1986.
 CNR-ICR, Raccomandazione NORMAL 1/88 Alterazioni macroscopiche dei materiali lapidei: lessico, Roma, 1988.
 Documento UNI 11182, Beni Culturali, Materiali lapidei naturali ed artificiali, Descrizione delle forme di degrado, Termini e definizioni, Milano 2003.
 Documento UNI 1130, Beni culturali, manufatti Lignei, Terminologia del degradamento del legno, Milano 2004.
 Documento UNI 11089, Beni culturali, Materiali lignei, Criteri per l'identificazione delle specie legnose, Milano 2003.

AMBIT	50394-Teorie e tecniche per il restauro architettonico
INDIVIDUAL STUDY (Hrs)	66
COURSE ACTIVITY (Hrs)	84

EDUCATIONAL OBJECTIVES OF THE MODULE

The restoration, use and maintenance of architectural heritage are some of the most relevant objectives of contemporary society, towards which the interest of the international scientific community is also addressed, sensitive to the interdisciplinary connections that restoration tends to establish. In the architectural heritage the community finds the stratified traces of its own culture and the didactic path of the Restoration Laboratory, within the integrated course, intends to contribute to the ethical thickening of the conscience of the restorer.

The teaching of the laboratory aims to transmit to the students the fundamental knowledge that is necessary for the executive planning of the restoration interventions of the works belonging to the architectural heritage. The lessons are inspired by the current positions of the Italian School of Restoration, of a conservative nature.

The contents of the Restoration Laboratory are, in particular, aimed at providing students with critical insights relating to the knowledge of ancient architectural buildings, the recognition of forms of decay and instability, instrumental diagnostics and restoration techniques. The course aims to transmit to students the fundamental knowledge to plan and carry out diagnostic investigations, preferring those of a non-destructive or minimally invasive nature, with the use of the most correct tools and operating methods in order to draw up an effective diagnosis to support of conservation interventions of architectural heritage. During the course the students will practice in the recognition of materials, construction techniques, in the elaboration of the thematic maps of decay and alterations, instability and conservation interventions, which constitute the documents of the restoration project. Furthermore, students will learn to orient themselves among the possible intervention choices by focusing attention on the methodologies that are more compatible with the subject of architecture and in compliance with the criteria of compatibility, reversibility and minimum intervention.

The drafting of the exercise and the project is conducted by suggesting to students the use of the standardized lexicon and provides for the choice of restoration techniques.

SYLLABUS

Hrs	Frontal teaching
4	4 Presentation of the course: objectives and organization of teaching. Principles and aims of architectural restoration. The diagnostic process; purpose of scientific applications and operational methodology for the design of architectural restoration.
6	6 Knowledge of architectural heritage: preliminary analysis systems of architectural heritage through filing and photographic surveys, simplified system for photo straightening and representation of historical architecture.
6	6 Analysis of the state of conservation of materials and structures. Natural stone materials, artificial stone materials, wooden materials, forms of decay, study of metal materials and their degradation. Structural failure analysis and their representation.
4	Knowledge and application of normalized systems. NorMaL recommendations and UNI standards. Recognition of macroscopic alterations of stone and wood materials.
6	Classification of diagnostic investigations. Principles, objectives and methods of choosing diagnostic systems. Application examples. Interventional diagnostics and synergies between diagnostic investigations, role of on-site checks.
8	Methods of consolidation, cleaning and protection of the materials of historical architecture. Dehumidification of architectural factories. Compatibility, reversibility and minimal intervention. The restoration of architectural surfaces (plasters, frescoes, stuccos, flooring): in-depth analysis of the consolidation methods (cohesion and re-adhesion), cleaning and integration of gaps.
4	Reference legislation. Price analysis and estimation of architectural restoration works.
Hrs	Practice

30	<p>o achieve the objectives, the cycles of lectures will alternate with inspections aimed at analyzing and understanding the architectural factories that will be the object of study during the design exercise.</p> <p>Students will have to draw up a restoration project that includes:</p> <ul style="list-style-type: none"> - survey of surfaces with photogrammetric methods - recognition of materials and construction techniques - analysis of deterioration and instability - diagnostic investigation plan - restoration interventions (choice of methods, tools, materials) - price analysis and estimated metric calculation - project report <p>There will be ongoing tests and periodic reviews of the documents.</p>
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MODULE ARCHITECTURAL DESIGN IN URBAN CONTEXYS - WORKSHOP

Prof. MICHELE SBACCHI

SUGGESTED BIBLIOGRAPHY

Colin Rowe, Collage city, Cambridge, 1978
Aldo Rossi, L'architettura della città, milano 1966
Pier Luigi Nicolini, Elementi di architettura, Milano 2000

AMBIT	50389-Progettazione architettonica e urbana
INDIVIDUAL STUDY (Hrs)	88
COURSE ACTIVITY (Hrs)	112

EDUCATIONAL OBJECTIVES OF THE MODULE

The learning goal is to increase and develop the skill of the designer whereas intervening on built realms.

SYLLABUS

Hrs	Frontal teaching
4	Introduction
3	City upon city
3	The importance of context within modern architectural design: after rationalism
3	The tradition of urban analysis: Italians and French
2	Architectural design projects on the built environment
3	Introduction to the design area
3	The importance of physical state, the importance of construction
Hrs	Practice
4	Discussion of the first studies
Hrs	Workshops
6	Design first studies
8	Studio work
8	Studio work
8	Studio work
8	Studio work
8	Studio work
8	Studio work
8	Studio work
8	Studio work
8	Studio work
Hrs	Others
6	Site visit of the project area
6	Construction site visit
6	Construction site visit 2