

NATIONAL TECHNICAL

UNIVERSITY OF ATHENS

[GREECE]



[ITALY]



BEZALEL ACADEMY OF ARTS AND DESIGN [ISRAEL] PerpetielSI SRL

PERPETIELSI SRL

[ROMANIA]



ISRAEL ANTIQUITIES AUTHORITY [ISRAEL] HELLENIC RESEARCH INSTITUTE OF THE ALEXANDRIAN CIVILIZATION [GREECE]

EDICULA

Educational Digital Innovative Cultural heritage related Learning Activities

Project Code: 2020-1-EL01-KA203-079108

Intellectual Output:	02 EDICULA Curricula Reformation
Deliverable:	D2.2 - Outcomes of the nine (3x3) reformed courses
Lead Organization:	Sapienza University of Rome
Date:	30 November 2021



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Table of contents:

1	Intro	duction		1
	1.1	Output 2		1
	1.2	Task 2.1		2
	1.3	Deliverables		3
2	DELI	/ERABLE 2.2 Outcomes of the nine (3x3) reformed courses	3	

1 | INTRODUCTION

1.1 | OUTPUT 2

EDICULA project aims to reform the curricula of three post graduate programs in the field of Cultural Heritage, to permit their graduates, despite their discipline, to commonly respond to the need to face grand challenges and risks in complex environments. The parallel and complementary approach of the reformation of specific courses in these Master Programs, promotes the need for harmonization for the future creation of a Joint transdisciplinary Master Degree in the field of Monument Rehabilitation and Conservation.

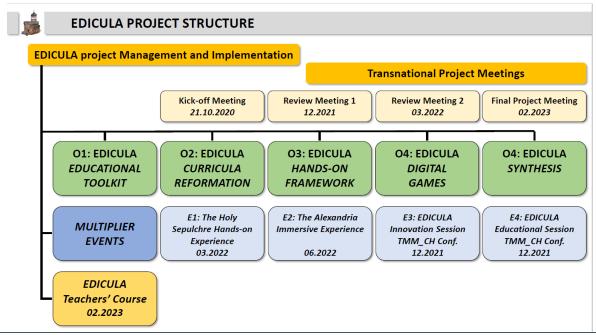


Fig. 1.1 | EDICULA Project Structure (EDICULA Kick-off Meeting 21.10.2020 Presentation)

The second output is (hereafter O2) – **EDICULA Curricula Reformation** requires the participation of the Executive Boards of the three participating Post Graduate Master:

NATIONAL TECHNICAL UNIVERSITY OF ATHENS (NTUA) Post Graduate Program in "Protection

of Monuments"

- **SAPIENZA UNIVERSITY OF ROME (UNIROMA1)** Post Graduate Program in "Science and Technology for the Conservation of Cultural Heritage"
- BEZALEL ACADEMY OF ARTS AND DESIGN (BEZ) Post Graduate Program in "Urban Design"

together with the Conservation Unit in the Department of Architecture"

In particular,

NTUA Post Graduate Program in "Protection of Monuments" is focused on Methodologies for the conservation and interventions.

It consists of two directions :

- (A) Conservation and restoration of historic buildings and sites", organized by the NTUA School of Architecture , and
- (B) Materials and conservation intervention", organized by the NTUA School of Chemical Engineering.

The interdepartmental character of the program has been very decisive for its interdisciplinary character.

UNIROMA1 Post Graduate Program in **"Science and Technology for the Conservation of Cultural Heritage" is focused on the scientific approach in the analysis of CH.** The course aims at training researchers and experts in the field of CH conservation and archaeometry to analyze conservation problems and to detect deterioration processes, based on the physical, chemical and structural properties of materials, as well as to identify any possible remedies.

BEZ Post Graduate Program in **"Urban Design"** is focused on documentation and knowledge based design. It is a multi-disciplinary program, building on the knowledge based design project, with the objective of enriching the quality of the environment in cities through innovative design that relates to the theoretical study of the spatial structure of the form of the city.

In addition, WP2 is connected with Multiplier Event E4 and the Teaching Activity.

The final goal of O2 is to blend the different competences of these Master Programs, through the **REFORMATION OF DIVERSE, YET COMPLIMENTARY, EXISTING MASTER COURSES**, in order to address the needs of students from different scientific backgrounds and different professional dynamics.

O2 also aims to cover the EDUCATIONAL NEEDS FOR EMERGING PROFESSIONAL PROFILES OF SCIENTISTS IN THE PROTECTION OF MONUMENTS since new roles and responsibilities among diverse disciplines (i.e., architects, engineers, archaeologists, conservators and natural scientists) are required in the post industrial era for sustainable development

1.2 | TASK 2.1

O2 of the EDICULA Project consists of three tasks:

Task 2.1	Postgraduate reformation
Task 2.2	Doctoral reformation
Task 2.3	Dissemination activities of the curricula reformation

The task duration is reported in the following table:

|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

Task 2.1																		
Task 2.2																		
Task 2.3																		

Task 2.1 **Postgraduate reformation** in its turn is divided to three stages:

Task 2.1	Postg	raduate reformation
	Stage 1	The design phase for each Master Program (M1 M12)
	Stage 2	The implementation phase of the reformed courses in the curricula of the three MSc (M13 M24),
	Stage 3	The evaluation phase to assess the level of trans disciplinarity and the complementarity of the nine reformed courses, so that the reformed courses will lead to the promotion of a Joint Master Degree in the field of monuments' rehabilitation (M13 30)

1.3 | DELIVERABLES

Seven Deliverables are assigned for O2:

D2.1	Design of the curricula reformation for each Master Program
D2.2	Outcomes of the nine (3x3) reformed courses
D2.3	Evaluation report of the reformed courses
D2.4	Assignment of the three doctoral theses
D2.5	Annual progress reports on the three doctoral theses
D2.6	TMM_CH21 Special Educational Session
D2.7	Proceedings of the TMM_CH21 Special Session

2 | DELIVERABLE 2.2 OUTCOMES OF THE NINE (3x3) REFORMED COURSES

The NTUA Master Program had postponed the call of applications for the current academic year 2021-2022, due to the pandemic and the consequent delay of the graduation of the previous academic year's students.

However, NTUA has organized separated reformatted courses as seminar cycles of the NTUA Master program "Protection of Monuments", in the framework of EDICULA curricula reformation.

The first seminar cycle with the title "The rehabilitation of the Holy Aedicule of the Holy Sepulchre in Jerusalem" was planned from December 1st to 7th, in order to be primarily evaluated during TMM_CH / EDICULA Educational Session on December 13th. According to the evaluation NTUA shall redesign the other two NTUA educational seminar components that will follow.

The seminar will be addressed to postgraduate students from the three collaborating Master Programs from NTUA, UNIROMA1, BEZ.

The first seminar was organized in five three-hour sessions and has been designed and proposed as the reformation of the optional course 3.8. **"Interdisciplinary documentation, diagnosis, revealing and protection of Cultural Heritage towards sustainable development"** of the NTUA Master Program "Protection of Monuments" Direction "Materials and conservation interventions".

Each three-hour session corresponded to 4 didactic hours. NTUA Seminar 1, including teaching and studying time, sums up to 30 hours, for which optional courses of NTUA's Master Program "Protection of Monuments" are accredited to **7 ECTS**.

WEDNESDAY	Y 1 DECEMBER 2021 15:00-18:00 EET	
15:00-16:00	Prof. A. Moropoulou	The innovation and challenges of the rehabilitation of the Holy Aedicule of the Holy Sepulchre – Scientific supervision
16:00-18:00	Prof. M. Korres	Architectural documentation of the Holy Aedicule in the open city of Jerusalem
https://c	entralntua.webex.com/centralntua/j.php?MTID=	m728ce6c2c3d77e4f47bdf00873636725

THURSDAY	2 DECEMBER 2021 15:00-18:00 EET	
15:00-18:00	Coordinator: Prof. A. Georgopoulos Participating: Prof. C. Ioannidis, Prof. G. Pantazis, S. Soile, S. Tapeinaki, R. Chliverou, Dr. E. Tsilimantou, et als	Dynamic integrated geometric documentation of the monument before, during and after the rehabilitation High accuracy geodetic measurements for monitoring deformations

https://centraIntua.webex.com/centraIntua/j.php?MTID=me8dbaa71de2bd6ed8fcec50da7021b2f

FRIDAY 3 DE	CEMBER 2021 15:00-18:00 EET	
15:00-16:00	Dr. K. Lampropoulos, Prof. A. Moropoulou	The structural evolution of the Holy Aedicule. Prospection of the Past
16:00-17:00	Dr. E. Delegou, Prof. A. Moropoulou	Characterization, archaeometry, archaeogene of building materials of the Holy Aedicule – Compatibility of conservation interventions
17:00-18:00	Dr. M. Apostolopoulou, Dr. E. Aggelakopoulou Ass. Prof. A. Bakolas, Prof. A. Moropoulou	Historic mortars study – Design and use of compatible restoration mortars at the Holy Aedicule rehabilitation
<u>https://c</u>	entraIntua.webex.com/centraIntua/j.php?MTID=r	n300f8e5c81260271f48075051596a282

MONDAY 6	DECEMBER 2021 15:00-18:00 EET	
15:00-16:30	Prof. C. Spyrakos, Dr. Ch. Maniatakis	Assessment of the structural response of the monument under static and seismic loads
16:30-18:00	Ass. Prof. Ch. Mouzakis	In situ evaluation and implementation of retrofit and strengthening measures of the monument –Construction site management
https://c	entraIntua.webex.com/centraIntua/j.php?MTID=	m8b7ccbeeb8f0ec0234a560b47419eb5b

TUESDAY 7 I	DECEMBER 2021 15:00-18:00 EET	
15:00-16:00	Em. Alexakis, Ass. Prof. D. Kyriazis, Ass. Prof. A. Doulamis, Dr. K. Lampropoulos, Prof. A. Moropoulou	An exemplary information system and methodology for the integrated management, analysis and dissemination of digital cultural heritage data coming from the rehabilitation of the Holy Aedicule
16:00-17:00	Dr. M. Karoglou, Prof. A. Moropoulou	Monitoring for the sustainability of the monument
17:00-18:00	N. Moropoulos	Governance and Management of the Holy Edicule Rehabilitation Project
https://c	entraIntua.webex.com/centraIntua/j.php?MTID=m	d910f90981ec328b471b56af17b9ee5b

UNIROMA1 has started the two reformed compulsory courses for the academic year 2021/22 (each with 9 ECTS): "Applied geosciences and bioconservation laboratory" and "Plant biology and conservation for cultural heritage" (9 ECTS)

Only one optional course "Introduction to thesis and practical seminars" (6 ECTS) has started as the second one "Climate risk assessment" (6 ECTS) is planned for the second semester. This choice was related to a practical need, it will be planned in future in the first semester.

The subjects have adapted the syllabus to the transdisciplinary collaboration with an open-minded scientific specialization approach. This aim will be obtained by merging multidisciplinary theoretical and practical education, through laboratory and on-site surveys, experimental courses and educational visits and the elaboration of innovative postgraduate theses.

LM-11 SCIENCE AND TECHNOLOGY FOR THE CONSERVATION OF CULTURAL HERITAGE

COURSE TITLE

ECTS SSD

PLANT BIOLOGY AND CONSERVATION FOR CULTURAL HERITAGE	9	
Module 1		<i>6 -</i> BIO/02
Module 2		<i>3 -</i> CHIM/12
APPLIED GEOSCIENCES AND BIOCONSERVATION LABORATORY	9	
Module 1		<i>6 -</i> GEO/09
Module 2		<i>3 -</i> CHIM/12
CLIMATE RISK ASSESSMENT OF CULTURAL HERITAGE	6	FIS/06
INTRODUCTION TO THESIS AND PRACTICAL SEMINARS	6	
Module 1		<i>3 -</i> CHIM/12
Module 2		<i>3-</i> BIO/02
TOTAL	30	one semester

BEZ is opening two new tracks in the Master's Program in Urban Design which one is - Conservation and Heritage Track. The Master's Program in Conservation and Heritage offers to examine the increasing importance of preservation as an integral component in the field of urban design and planning of the city, from a critical approach to the conservation activities and the essence of conservation in the urban space.

COURSE TITLE		ECTS	SSD
CONSERVATION THEORIES		6	
	Module 1		3 - Urban
	Module 2		3 - Architectural
URBAN HERITAGE		9	
	Module 1		6 - State of the Art
	Module 2		3 - Interpretations
LEARNING FROM JERUSALEM		6	
PRACTICAL STUDIO/WORKSHOP		9	
	Module 1		6 - Studio
	Module 2		3 – Individual project
	TOTAL	30	one semester

THEORIES AND PRACTICE IN THE CONSERVATION OF CULTURAL HERITAGE

So far, concerning the outcome, the contents of reformatted courses either as new courses already taught (Uniroma1), or as planned courses for the new Master programme (BEZ), or as seminar cycles on specific topics related to Edicula, have been identified.

November 2021