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(Strategic Partnerships for
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DELTA: Digital Excavation through
Learning and Training in Archaeology

2019-1-EL01-KA203-062875

<http://www.project-delta.eu/>



IO2 DIGITAL EXCAVATION TRAINING PLATFORM

A3. Pilot training and ISP Hellenic Open University



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Intellectual Output:	IO2 Digital excavation training Platform
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Abstract:	This document provides information on the pilot of the blended course in 2021 as well as the piloting of the online course in 2022. All partners contributed to the piloting and HOU additionally had the role of monitoring and technical support in platform.
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Table of Contents

1.	Abstract	4
2.	Piloting the DELTA blended course	4
3.	DELTA Online Course	7
4.	DELTA Open Badges and Certificates	8
5.	Intensive Study Program /(ISP) in DELTA course	10



1. Abstract

For the design and development of DELTA course, the consortium took into consideration the skills needed for new archaeologists and the syllabus of the training offered in Archaeological departments at EU level. It contained the design of the learning outcomes, the development of training content and modules, the specification of hands-on practice and the evaluation of the online course.

2. Piloting the DELTA blended course

The blended course of “Digital Excavation” was first implemented in 2021, combining various educational tools and methods:

- a) An *online course* (MOOC) on “Digital Excavation”, implemented through the DELTA online platform,
- b) *Face-to-face activities*, combining theory and practice, which was organized by the partners in their countries, but, due to the pandemic restrictions, had to be implemented online,
- c) An *Intensive Study Program* (ISP) for training in the excavation field and the laboratory, which took place at the excavation of the National and Kapodistrian University of Athens, at Marathon.

The course “Digital Excavation” offered an advanced training for the students of Archaeology as well as Archaeologists and Professionals in Culture Heritage in order to acquire essential knowledge, digital competences and 21st century skills. In this regard, the learners shall develop knowledge and skills in the following areas:

- Knowing and applying digital strategies and tools for archaeological work and excavation.
- Planning a fieldwork using available online data sources.
- Learning about digital documentation.
- Applying digital tools for documenting archaeological data.

- Adopting databases and GIS for the analysis and interpretation of archaeological data.
- Enabling themselves in visualizing digital data.
- Knowing about the virtual technologies applied in the preservation of sites and monuments.
- Being familiar with policies and best practices in the context of Cultural Heritage and Public Archaeology.
- Community building, participating and interacting with peers in an online environment.

The DELTA blended course addressed mainly:

- ✓ Students of the Department of History and Archaeology of the National and Kapodistrian University of Athens (Greece), the Department of European and Mediterranean Cultures: Architecture, Environment, Cultural Heritage (DiCEM) of the University of Basilicata (Italy), Department of Archaeology and Museology of the Masaryk University (Czech Republic).

The training content of the DELTA blended course on “Digital Excavation” contained four main Modules:

Module 1. Digital Tools for Archaeological Practice/Excavation developed by Masaryk University.

Module 2. Documentation in situ and after excavation developed by NKUA.

Module 3. Digital Preservation of cultural heritage monuments and artifacts (3d representation and reconstruction) developed by UNIBAS.

Module 4. Open-Air Museums and Experimental Archaeology developed by HOU.

The blended course was of total 200 hrs/8 ECTS, combining online, and sessions with the tutors. During the Intensive Study Program (ISP), a joint excavation was held at the NKUA excavation, in Plasi



Marathon, Greece, with the participation of 20 people in total, students and professors, from the 3 countries. A total of 54 learners successfully finished the course.

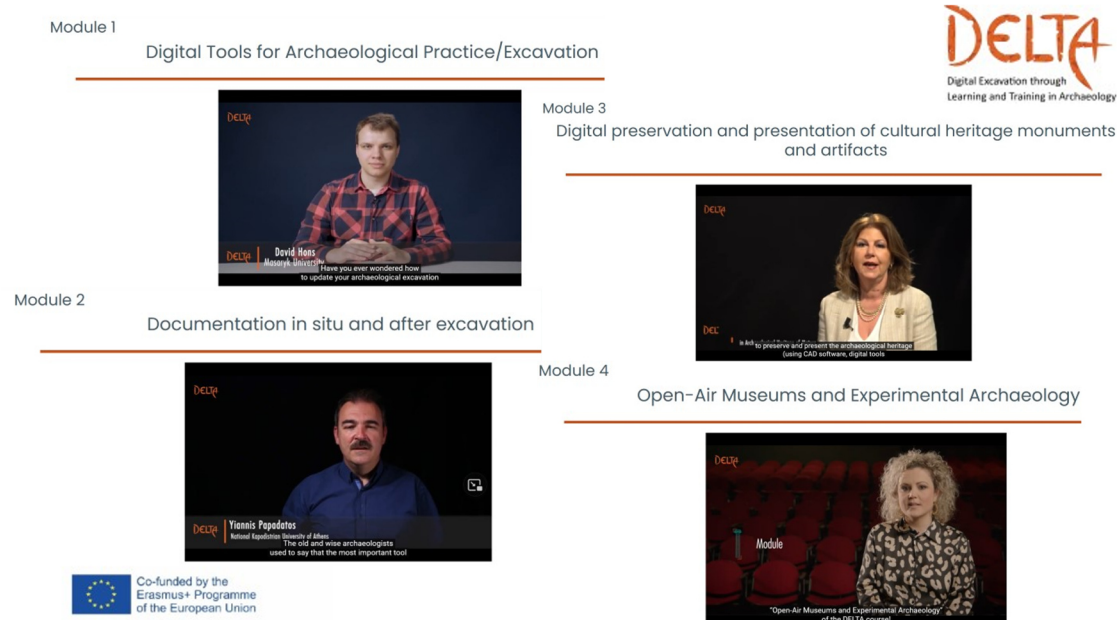
The blended course run from May to July 2021, for students of Archaeology from the 3 participating countries/ Universities. The Programme specifically:

Module 1 [10 - 30 May 2021]

Module 2 [31 May - 20 June 2021]

Module 3 [21 June - 11 July 2021]

Module 4 [12 - 30 July 2021]



A total of 54 learners successfully finished this course. Through the platform, were provided Open Badges for all course modules. The blended course was of 200 hours/ 8 ECTS in total (with 160 hrs online and f2f sessions with Tutors, 40 hrs in ISP), open only to students of Archaeology studying in the Universities of partners (NKUA, UNIBAS, MUNI).

3. DELTA Online Course

The DELTA Online course addressed:

- ✓ Students of the Department of History and Archaeology of the National and Kapodistrian University of Athens (Greece), the Department of European and Mediterranean Cultures: Architecture, Environment, Cultural Heritage (DiCEM) of the University of Basilicata (Italy), Department of Archaeology and Museology of the Masaryk University (Czech Republic).
- ✓ Students at other Universities.
- ✓ Graduates who wish to advance their knowledge and be competent in the field of Digital Excavation.
- ✓ Active professionals of the relevant fields of Archaeology and Cultural Heritage Management.

The online course had a duration of 12 weeks:

Module 1 [1 - 21 March 2022]

Module 2 [22 March - 11 April 2022]

Module 3 [12 April - 2 May 2022]

Module 4 [3 - 23 May 2022]

The training content of the DELTA blended course on “Digital Excavation” contained four main Modules:

Module 1. Digital Tools for Archaeological Practice/Excavation developed by Masaryk University.

Module 2. Documentation in situ and after excavation developed by NKUA.

Module 3. Digital Preservation of cultural heritage monuments and artifacts (3d representation and reconstruction) developed by UNIBAS.

Module 4. Open-Air Museums and Experimental Archaeology developed by HOU.

A total of 118 learners successfully finished this course. Through the platform, were provided 340 Open Badges for all course modules. The online course was of 100 hours/ 4 ECTS, open to all and run from March to May 2022 (only the online part in the DELTA platform).

4. DELTA Open Badges and Certificates

Upon completion of the course and succeeding in at least the 80% of both learning material and of graded activities (quizzes and tests), learners were able to achieve the Certificate of Completion. The Course included self-assessment with quizzes (closed –end questions). Open badges were awarded to learners after the successful completion of each Module.

DELTA Online Badges



Image 2. Open badges were awarded to learners after succeeding each Module. The Golden Badge was awarded to the successful learners of all 4 Modules

DELTA Certificates - Online Completion & compendium



Image 3. Certificate of Completion were awarded to learners after succeeding in all Modules

DELTA Certificates - Online participation & compendium



Image 4. Certificate of Online Participation was awarded to learners for participating online and after completing at least Module 1's study and assessment

The course was provided through the DELTA platform:
<https://mooc.cti.gr/delta.html>.

5. Intensive Study Program /(ISP) in DELTA course

The Intensive Study Program (ISP) of DELTA took place at the excavation of the National and Kapodistrian University of Athens, at Marathon, in October 2021.

The aim of the ISP was to train a number of selected learners in digital archaeological methods and techniques in the excavation field and in the laboratory. It was organized in such a way to follow the modules of the DELTA online course, but it included also educational visits to archaeological sites and excavations in Athens. More particularly, the program and the aim of each day was as follows:

Day 1: orientation and introduction to the site and the methodology of excavation. The aim was to introduce the learners to the archaeological site of Plasi, Marathon, to the excavation methodology, and to the structure and program of the 5-days ISP.

Day 2: Module 1, Digital tools for archaeological excavations. The aim was to cover the subjects of Module 1 of the DELTA online course: (1) the principles and basic elements of topographic instruments (RTK GNSS), and (2) the use of topographic instruments for the production of 2D and 3D images of an excavation trench, archaeological feature or ancient building

Day 3: Module 2, Digital documentation in the excavation. The aim was to cover the subjects of Module 2 of the DELTA online course: (1) the use tablets and data collection software in order to record excavation data in the field, and (2) how to create digital forms, fill in, upload and manage excavation data.

Day 4: Module 3, Digital preservation of cultural artifacts. The aim was to cover the subjects of Module 3 of the DELTA online course: (1) present the basic principles about the creation of 3D models with Laser Scanning and Structure from Motion (SfM), and (2) practice on how to use SfM in order to create 3D models of movable finds

Day 5: Module 4, Open-air museums and public archaeology. The aim was to cover the subjects of Module 4 of the DELTA online course: (1)

presentation of the basic principles of Public Archaeology, and discussion on how to turn an excavation into an open-air museum as part of a strategy for public engagement and public awareness, (2) participate to a specially designed educational program for high-school pupils, which will take place this day in the excavation field of Marathon. Unfortunately, due to bad weather conditions, the second part had to be cancelled, and replaced by in-door activity without pupils.

The ISP was followed by 14 learners, and their tutors (a total of 20 people) from three participating universities (NKUA, UNIBAS, MUNI), who stayed for one week in Athens and participated every day in the NKUA academic excavation, from 8.00 until 14.00. The learning and training programme included lectures, presentations, applications of digital tools and software in archaeological excavations, usage of drones and thermal cameras, use of Total Station and RTK GNSS, 3D modeling, photogrammetry, storytelling techniques and group activities as well as study visits to museums, laboratory of conservation & archaeological sites. The evaluation of the DELTA courses as well as of the ISP, are summarized in the Evaluation Report.

DELTA course Digital Excavation

Intensive Study Programme

Practical training for 5 days
Greece - Italy - Czech Republic

Joint excavation at Plasi, Marathon
(October 2021) - NKUA's excavation field



Image 1. DELTA ISP at Plasi, Marathon excavation



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Image 2. DELTA ISP group activities with students of Archaeology in Athens, October 2021