



BYZANTINE STUDIES
VIA AI & IMMERSIVE TECHNOLOGIES

University of Ioannina
Department of History and Archaeology
Regulations of studies, internship and students' assignments
[Faculty Board Decision, No 542, 27/5/2026]

A. REGULATION OF STUDIES

Article 1

Subject Area – Objectives – Learning Outcomes

A. Subject Area and Objectives of the PSP

The PSP focuses on the study of the Byzantine world through the application of contemporary theoretical, methodological, and technological approaches. The program is designed for an international academic audience and aims to provide high-level education and research training in the fields of Byzantine Studies, Digital Humanities, and Computer Science.

The program is implemented through a collaboration between the Department of History and Archaeology and the Department of Computer Science and Telecommunications of the University of Ioannina, and the Department of Byzantine and Modern Greek Studies at the Universität Münster, Germany, promoting the interdisciplinary and international dimensions of teaching and research.

The principal objective of the program is to integrate Byzantine Studies with modern digital technologies, particularly applications of Artificial Intelligence and immersive technologies, with the aim of developing new research approaches, fostering innovation, and promoting interdisciplinary collaboration.

The program is structured around three interrelated strategic pillars:

- a) Educational innovation
- b) Research excellence
- c) The international promotion of Byzantium as a significant component of Greek and European cultural heritage.

B. Scientific and Academic Field

The PSP combines the theoretical and research traditions of Byzantine Studies with contemporary technological methods and tools. It provides specialized knowledge in Byzantine history, archaeology, art, cultural heritage, and the auxiliary disciplines of the field, situating them within the broader framework of Digital Humanities. At the same time, the program introduces students to the applications of Artificial Intelligence in the humanities, immersive technologies such as Mixed Reality (MR), and contemporary methods for the analysis, documentation, management, and interpretation of historical and cultural data. Through this interdisciplinary approach, students gain both a solid foundation in Byzantine Studies and advanced digital competencies, enabling them to engage with innovative research methodologies and emerging technological developments in the study and preservation of cultural heritage.

C. Interdisciplinary Dimension and Innovation

The program promotes interdisciplinary collaboration between the humanities, computer science, and information technologies, enhancing students' ability to operate effectively in complex research and professional environments. Training in advanced digital technologies enables students to transform historical and cultural material into structured digital knowledge, develop innovative approaches for the documentation and promotion of cultural heritage, and utilize digital environments for the representation and interpretation of the Byzantine world.

By linking historical research with digital innovation, the Master's Program contributes to the development of new academic and professional opportunities in the fields of culture, education, and research. Through this interdisciplinary framework, graduates acquire both specialized expertise and transferable digital skills, preparing them to address contemporary challenges in the preservation, study, and dissemination of cultural heritage.

D. Academic and Professional Prospects

The program prepares graduates for professional careers in fields such as education, research, museums, archives, libraries, cultural organizations, cultural heritage management, Digital Humanities, and cultural tourism. At the same time, it provides a strong academic and methodological foundation for further study at the doctoral level, both in Byzantine Studies and in the broader field of Digital Humanities.

Participation in an international and interdisciplinary academic environment fosters the development of transferable skills that are essential for graduates' professional and research advancement at both national and international levels. These skills include critical thinking, digital literacy, interdisciplinary collaboration, project management, and the ability to apply innovative technologies to the study, preservation, and promotion of cultural heritage.

Learning Outcomes

Upon successful completion of the Program, graduates will be able to:

- Analyze and interpret Byzantine history, society, art, and cultural heritage using contemporary theoretical and methodological approaches.
- Apply critical thinking and scholarly evidence-based methods to the study and interpretation of historical and cultural phenomena related to the Byzantine world.
- Utilize digital tools, Artificial Intelligence applications, and immersive technologies for the research, documentation, analysis, management, and promotion of cultural heritage.
- Manage and process complex historical and cultural data by applying contemporary methods of digital analysis and documentation.
- Design and implement interdisciplinary research and cultural projects that integrate knowledge from the humanities and technology.
- Collaborate effectively in international and interdisciplinary environments, taking initiative within collective projects and research activities.
- Address complex problems through synthetic and creative approaches, drawing upon diverse academic disciplines and methodological frameworks.
- Communicate and disseminate knowledge related to Byzantine cultural heritage to a variety of academic, professional, and public audiences.
- Contribute to the protection, management, and promotion of cultural heritage through the application of modern technological and scholarly approaches.
- Employ specialized and transferable skills that support professional development in the fields of education, research, culture, and the digital economy.

These learning outcomes equip graduates with the academic expertise, digital competencies, and interdisciplinary perspective required to pursue careers in cultural heritage institutions, research centers,

educational organizations, and technology-driven cultural initiatives, as well as to continue their studies at the doctoral level.

Article 2

Selection and Admission of Postgraduate Students

The PSP is open to graduates of Higher Education Institutions (HEIs) in Greece or equivalent recognized institutions abroad, in accordance with the provisions of the applicable legislation and the Regulations for Postgraduate Studies of the University of Ioannina (Government Gazette 4942/B/2023, Articles 8 and 9). On dates determined by the Coordinating Committee (CC), the Program annually announces up to thirty (30) available places through an open call for applications. The relevant call is published on the Program's website as well as on the websites of the three collaborating Departments.

By decision of the Coordinating Committee, an Admissions Evaluation Committee is appointed to examine and assess the applications submitted by prospective students. Based on the established selection criteria, the Committee prepares a ranking list in descending order and recommends the admission of a number of candidates equal to the maximum number of available places specified in the call for applications. The final approval of admissions and enrolments is granted by the Department Assembly.

Admission Requirements

Applicants must satisfy the following requirements:

a) A first-cycle degree (Bachelor's degree) from a Greek Higher Education Institution or an equivalent recognized institution abroad.

Recognition of Foreign Academic Qualifications:

The Coordinating Committee of the Program is responsible for the evaluation and recognition of academic qualifications awarded by higher education institutions for admission purposes. The recognition of foreign qualifications is carried out in accordance with the provisions of the Lisbon Recognition Convention and the applicable national legislation of each partner country. In cases where national legislation requires the formal recognition of qualifications awarded by another partner institution, such recognition shall be carried out by the competent national authority or, where applicable, by the enrolling institution, in accordance with the relevant national procedures.

b) Proof of English language proficiency at a minimum level of B2 (Common European Framework of Reference for Languages).

Selection Criteria

The selection process is based on objective criteria that ensure the principles of equality, transparency, and meritocracy. Candidates with equal overall scores may be admitted up to a percentage corresponding to 30% of the maximum number of admitted students.

Applicants are evaluated on a scale of 100 points according to the following criteria:

- Bachelor's degree grade: up to 30 points
- Oral interview conducted by the Admissions Evaluation Committee: up to 25 points
- Research activity, including publications in relevant academic journals and/or presentations at conferences in related fields: up to 15 points
- Professional experience in a field relevant to the MSc Program: up to 10 points
- Statement of purpose / letter of motivation: up to 10 points
- Two (2) letters of recommendation (from faculty members, researchers, or employers): up to 10 points

Enrolment Procedure

In accordance with Article 4 of Ministerial Decision 18137/Z1/2023 (paragraph ia), following the completion of the selection process and the approval of admissions by the Department Assembly, successful applicants are registered in the electronic student registry of the University of Ioannina.

Registration is carried out through the Secretariat of the coordinating Department within the deadline specified in the Program's call for applications. Upon enrolment, each student is provided with an institutional account (username and password), granting access to all digital services and distance-learning platforms of the University.

Article 3

Course Registration and Study Load Management

Course registration constitutes a core academic and administrative procedure within the framework of the student-centred operation of the PSP and the assurance of study quality. At the beginning of each academic semester, students are required to submit electronically a declaration of the courses they intend to attend and be assessed in, via the University of Ioannina information system. For newly admitted students, registration takes place following the completion of their enrolment in the Department. The course registration period lasts two (2) weeks from the start of each semester and is announced in a timely manner by the Secretariat. Timely submission of course registration is a necessary prerequisite for participation in teaching activities, access to educational materials, and participation in the examinations of the declared courses.

The maximum number of credit units (ECTS) that may be declared per semester is thirty (30), in accordance with the European Credit Transfer and Accumulation System. No restriction applies to outstanding courses from previous semesters, in accordance with the specific provisions of the Study Program.

Article 4

Examinations and Student Assessment

Students are assessed in each course based on an individual written seminar paper, which they submit to the instructors at the end of each semester. In the event of an unsuccessful evaluation in courses of the winter or spring semester, students are given the opportunity to resubmit an improved version of their paper in September.

The deadline for submitting written seminar papers is determined by the Program Coordinating Committee (PCC) at the beginning of each academic year, taking into account the academic calendars of the cooperating Departments. In cases of force majeure affecting the student, as well as in cases of illness or recovery from a serious disease, the instructor is obliged, to the extent possible, to accommodate the student by providing a reasonable extension of the submission deadline.

Student performance is evaluated through grading within the framework of the knowledge assessment process. Each course, educational activity, as well as the Master's Thesis, is assessed independently. The grading scale ranges from 0 to 10, using integer or decimal values (to one decimal place). The passing grade is set at five (5.0) and above.

The Diploma Supplement includes a description of the grading scale applied, as well as references to the grading systems of the cooperating institutions, with the aim of ensuring transparency, comparability, and facilitating academic and professional recognition of qualifications.

For the grading of examinations and the Master's Thesis, the following grading scale is applied:

Grade Scale	
8.5 - 10.0	Excellent
6.5 - 8.4	Very Good
5.00 - 6.4	Good
0 - 4.9	Fail

Grade Scale of exams	University of Münster
1.0, 1.3	Very good/Excellent performance
1.7, 2.0, 2.3	Good / Performance well above average
2.7, 3.0, 3.3	Satisfactory / Average performance
3.7, 4.0	Sufficient / Positive evaluation despite weaknesses
5.0	Insufficient

Final Grade	University of Münster
1.0 to 1.5	Very Good
1.6 to 2.5	Good
2.6 to 3.5	Satisfactory
3.6 to 4.0	Sufficient
More than 4.0	Insufficient

In all assessment methods, equal access for students to the necessary resources and participation procedures is ensured. For students with disabilities and/or special educational needs, reasonable accommodations and alternative examination procedures may be applied, in accordance with the guidelines of the University's Equal Access Unit.

Grades for written assignments are recorded within four (4) weeks from the submission deadline, with uniform application across all courses regardless of cooperating institution or instructor. In case of delay, the Program Coordinating Committee (PCC) is informed by the Program Director, while grade correction is permitted only in cases of obvious or arithmetic error, upon the instructor's recommendation and PCC decision.

Written examinations are retained for two (2) years under the responsibility of the instructor and may then be destroyed, unless legal, disciplinary, or administrative proceedings are pending.

The final degree grade is calculated as a weighted average of all courses and other ECTS-based activities, using the respective credit units as weighting factors, i.e., as the sum (grade × ECTS) divided by the total ECTS of the program.

The final grade of the Diploma is calculated as the weighted average of all courses and other activities with ECTS, using the respective credit units as the weighting factor; specifically, it is calculated as the sum of (grade × ECTS) divided by the total ECTS of the Program.

Distance Learning Examination and Assessment

(In accordance with Article 6 of Ministerial Decision 18137/Z1/2023)

1. The assessment of students within the framework of the distance-learning Postgraduate Studies Programme (PSP) is conducted through written or oral examinations carried out in person, or written or oral examinations carried out by distance-learning methods, as well as through alternative assessment methods, such as the submission of written assignments or the completion of practical tests. The specific assessment method(s) applicable to each educational activity (course) are determined by the decision establishing the Programme and are set out in the Course Outline / Study Guide of the PSP.
2. Where assessment is carried out by means of examinations (in person or by distance-learning methods), the University of Ioannina takes all appropriate and necessary measures to ensure the reliability and integrity of the process. In particular, written or oral distance-learning examinations may be conducted through technological intermediation and corresponding remote-examination systems/applications that ensure user authentication, identity verification, and, where deemed necessary, the proctoring/invigilation of the examination process. Where specific technological equipment is required for the assessment process, this is announced in the annual call for applications for admission to the PSP.
3. The processing of personal data during the distance-learning examination process is carried out in a manner that ensures an appropriate level of security against risks such as accidental or unlawful destruction, loss, alteration, unauthorised disclosure of, or access to, personal data transmitted, stored, or otherwise processed. Teaching staff, invigilators, and persons providing technical and/or administrative support (such as the platform administrator) are bound by confidentiality obligations. The electronic platform used for conducting distance-learning examinations is selected on the basis of its reliability and its guarantees regarding the protection of personal data.
4. Upon completion of the assessment process, students are informed of their grades either through the anonymised posting of results in a dedicated section of the integrated distance-learning system, or through other appropriate electronic means.

Article 5

Duration of Studies and Suspension of Studies

The minimum duration of studies in the Master's Program (MSc) is four (4) academic semesters, including the time required for the preparation and submission for evaluation of the Master's Thesis, which is completed in the fourth semester of studies. In each semester, students may accumulate up to thirty (30) ECTS credits.

Part-time study is available upon a justified request by the student and approval by the Program Coordinating Committee (PCC). Students who have not exceeded the maximum duration of studies may, upon a justified request submitted to the Program Coordinating Committee (PCC), be granted a suspension of studies of up to two (2) academic semesters for serious reasons, such as military service, health issues, maternity, or residence abroad. The application must be accompanied by the necessary supporting documents that substantiate the reasons for the suspension. During the suspension period, student status is also suspended, with no possibility of participation in the Program's educational activities, and the semesters of suspension are not counted towards the maximum duration of studies. The student is required to re-register in the MSc Program at least two (2) weeks before the end of the suspension period in order to continue their studies.

In the case of a suspension for two consecutive semesters, early reinstatement into the Program is possible upon a relevant application submitted up to two (2) weeks before the beginning of the second suspension semester.

In addition, in exceptional cases, such as serious family or health reasons, an extension of studies beyond the maximum prescribed duration may be granted upon a justified request and approval of the PCC, for a period of up to four (4) academic semesters.

Article 6

Programme Curriculum, Structure and ECTS Requirements

The PSP's Program curriculum is interdisciplinary, combining theoretical training in Byzantine Studies with specialized courses in digital methods for cultural heritage documentation, Artificial Intelligence technologies, and immersive digital environments.

The program covers subject areas essential for the study, research, and digital promotion of Byzantine culture. These include, among others, photogrammetric documentation of objects, three-dimensional modelling, historical data processing, and the scholarly representation of Byzantine spaces through virtual and augmented reality applications. At the same time, courses in digital applications aim at the systematic organization, interconnection, and interpretation of historical data in interoperable digital environments, while courses in Byzantine Studies provide an in-depth examination of Byzantine culture across its full geographical and cultural extent.

In this way, the Program offers a comprehensive study framework that combines academic specialization with practical training in the use of modern digital technologies for the research, documentation, and promotion of cultural heritage.

From a total of nineteen (19) offered courses, students of the Program are required, during the first three semesters, to select five (5) courses from the field of Byzantine Studies and four (4) courses from the field of Computer Science, including two (2) compulsory courses.

In particular, the award of the Master's Degree requires the successful completion and assessment of five (5) elective courses in Byzantine Studies and four (4) elective courses in Informatics, as well as the Master's Thesis, amounting to a total of one hundred and twenty (120) ECTS credits. The detailed content of the courses is provided in the Study Guide of the PSP.

Each course carries ten (10) ECTS credits, while the Master's Thesis carries thirty (30) ECTS credits. The total number of ECTS credits required for the award of the Master's Degree is 120 ECTS.

The Study Program of the Postgraduate Program may be revised on an annual basis in order to ensure the continuous updating and enhancement of its academic content, its alignment with current scientific and professional developments in the field, and the optimal utilization of the available teaching staff. Any proposed modifications to the Study Program are prepared by the Coordinating Committee and submitted to the Postgraduate Studies Committee for approval, in accordance with the applicable regulations.

Structure of Studies

The duration of studies in the Postgraduate Program is four (4) academic semesters and corresponds to a total workload of one hundred and twenty (120) ECTS credits.

First Semester

One (1) Compulsory Course – 10 ECTS

Two (2) Elective Courses – 20 ECTS
Semester Total: 30 ECTS

Second Semester
One (1) Compulsory Course – 10 ECTS
Two (2) Elective Courses – 20 ECTS
Semester Total: 30 ECTS

Third Semester
Three (3) Elective Courses – 30 ECTS
Semester Total: 30 ECTS

Fourth Semester
Preparation and Public Defense of the Master's Thesis – 30 ECTS
Semester Total: 30 ECTS

Total Program Workload
The total workload of the Program amounts to one hundred and twenty (120) ECTS credits.

The table below presents the courses offered by the Program in detail.

Course	Semester	Instructor	ECTS
Byzantine History and Culture	1st	Christos Stavrakos (elective)	10
The magic of small objects: byzantine seals and coins	3rd	Christos Stavrakos (elective)	10
Functions of Words and Letters in Byzantine Daily Life	2nd	Michael Grünbart (elective)	10
Byzantium and its Northern Neighbours	3rd	Georgios Kardaras (elective)	10
The Splendor of Byzantine Illuminated Manuscripts: The Art of Miniature from Late Antiquity to the End of the Eastern Roman Empire	3rd	Apostolos Mantas (elective)	10
The Art of War in Byzantium: Military Thought, Strategy, and Cross-Cultural Conflict	2nd	Efstratia Sygkellou (elective)	10
Byzantium and Armenia: From the Arshakuni to the Het'umids (4th-14th Centuries)	2nd	Konstantinos Takirtakoglou (elective)	10
Constantinople: The Power and Splendour of the Byzantine capital	1st	Galina Fingarova (elective)	10
Icons and Experience: Seeing, Believing, and Understanding Byzantine Art	1st	Fanie Lytari (elective)	10
After Byzantium: Living Icons and the Global Journey of a Sacred Tradition	2nd	Fanie Lytari (elective)	10
Imperial Ideology and Collective Identities in Byzantine Society (4 th –15 th c.)	1st	Panagiotis Theodoropoulos (elective)	10
The Reception of Byzantium in Modern and Contemporary Literature. Comparative approaches	3rd	Yorgos Archimandritis (elective)	10
AI as a Research Partner in Byzantine Studies	3rd	Ioannis Tsoulos (elective)	10
Fundamentals of AI and Machine Learning for Byzantine Studies I	1st	Chrysostomos Stylios (compulsory)	10
Fundamentals of AI and Machine Learning for Byzantine Studies II	2nd	Petros Karvelis (compulsory)	10
Geographic Information Systems and Spatial Analysis in Byzantine Studies	2nd	Ioannis Tsoulos (elective)	10

Interactive Cultural Applications and Creative Computing for Byzantine Heritage	3rd	Chrysostomos Stylios (elective)	10
Mixed Reality and Digital Representation of Byzantine Culture	1st	Chrysostomos Stylios (elective)	10
Natural Language Processing for the Byzantine Corpus	3rd	Petros Karvelis (elective)	10
Master's Thesis	4		30

Course Descriptions

(Ch. Stavrakos) Byzantine History and Culture: This course examines Byzantium as the medieval Roman Empire, exploring its political structures, religion, society, economy, warfare, culture, and intellectual life from Late Antiquity to 1453. It also addresses Byzantium's historiography, cross-cultural interactions, artistic and literary traditions, and its enduring legacy and modern scholarly interpretations.

(Ch. Stavrakos) The magic of small objects: byzantine seals and coins: This course examines Byzantine seals and coins as primary sources for the study of administration, economy, society, and imperial ideology. Through sigillographic and numismatic evidence, students explore bureaucracy, prosopography, monetary systems, circulation, iconography, and late Byzantine transformations, developing specialized methods for interpreting Byzantine material culture and historical structures.

(M. Grünbart) Functions of Words and Letters in Byzantine Daily Life: This course explores the functions of writing in Byzantine society, focusing on Greek written sources and material evidence. It examines how words and letters shaped authority, identity, administration, trade, religion, memory, and education. Using inscriptions, seals, and minor objects, it highlights writing as a key force in Byzantine social and institutional life.

(G. Kardaras) Byzantium and its Northern Neighbours: The course offers a global view of Byzantium's northern neighbours from the 4th to the 15th c. Students learn on the various neighbours of Germanic, Slavic and Central Asian origin, occupied the territory of Central, Eastern and Southeastern Europe.

(A. Mantas) The Splendor of Byzantine Illuminated Manuscripts: The Art of Miniature from Late Antiquity to the End of the Eastern Roman Empire: The course examines the development of illuminated manuscripts in Byzantium in various historical phases, including the early Byzantine tradition, the iconoclastic period, the "Macedonian Renaissance" etc. Some important illuminated manuscripts, such as the *Vienna Genesis*, the *Rossano Gospel*, the *Chloudov Psalter* and *Codex Par. gr. 139* are examples of this development.

(E. Sygkellou) The Art of War in Byzantium: Military Thought, Strategy, and Cross-Cultural Conflict: This course examines the Byzantine "art of war" as a dynamic interplay of military thought, strategy, and ideology. Drawing on primary sources, it explores how warfare was conceived and practiced, while situating Byzantium's conflicts within a broader context of cross-cultural interaction.

(K. Takirtakoglou) Byzantium and Armenia: From the Arshakuni to the Het'umids (4th-14th Centuries): This course examines the relations between the Byzantine Empire and the Armenians from the fourth century, the period of the Arsacids, to the fourteenth century, marked by the fall of the kingdom of Cilician

Armenia. Its aim is to analyse the empire's foreign policy in relation to Armenia, a region of considerable geostrategic significance.

(G. Fingarova) Constantinople: The Power and Splendour of the Byzantine capital: The course analyses the Byzantine capital through its urban structure, infrastructure, and built environment. It examines spatial organisation, imperial representation, sacred architecture, and artistic production as key expressions of Byzantine urban culture. It concludes with the post-Byzantine transformation and reception of the city's architectural and artistic heritage.

(F. Lytari) Icons and Experience: Seeing, Believing, and Understanding Byzantine Art: This course explores Byzantine icons as complex intersections of art, theology, and experience. It examines vision, materiality, and liturgical context, alongside iconoclasm and iconographic analysis. Emphasis is placed on sensory perception, devotion, and reception, equipping students with critical tools to interpret icons within their historical and cultural frameworks.

(F. Lytari) After Byzantium: Living Icons and the Global Journey of a Sacred Tradition: This course explores the transformation of Byzantine icons after the fall of Constantinople, emphasizing continuity, mobility, and global circulation. It examines icons as living objects within devotional, cultural, and artistic networks, while addressing issues of diaspora, museums, the art market, and digital reinterpretation in the modern world.

(P. Theodoropoulos) Imperial Ideology and Collective Identities in Byzantine Society (4th– 15th c.): The course studies the interplay between political ideology and the formation of collective identities in Byzantium. Drawing on primary sources, it explores how ideological failures, changes and clashes affected the perception and expression of collective identities in Byzantine society.

(Y. Archimandritis) The Reception of Byzantium in Modern and Contemporary Literature. Comparative approaches: This course treats Byzantium as a dynamic literary and cultural palimpsest, exploring how the empire is continuously rewritten and reimagined across different forms of narrative creation. It analyzes how contemporary creators - from novelists like Umberto Eco to filmmakers like Tarkovsky - utilize Byzantine historic, cultural and artistic elements to address modern themes.

(I. Tsoulos) AI as a Research Partner in Byzantine Studies: The course covers the following thematic areas: the conceptual foundations of large language models and their limitations for specialized historical research; prompt engineering and systematic AI tool evaluation; AI-assisted literature search, bibliography management, optical character recognition, and multilingual source navigation; corpus interrogation and synthesis using AI tools; named entity recognition and structured annotation of historical texts; precision, recall, and domain drift as evaluation metrics; the legal and ethical framework governing AI use in academic research; the transformation of research notes into structured, reusable data; and the use of AI tools for academic presentation and visual communication. All topics are taught through Byzantine studies examples and assessed through a cumulative capstone research project.

(Ch. Stylios) Fundamentals of AI and Machine Learning for Byzantine Studies I: The course covers: the landscape of AI and its applications in Byzantine Studies; the nature and challenges of Byzantine data types; uncertainty and ambiguity as scholarly categories; machine learning fundamentals and model evaluation; critical reading of AI outputs; OCR and HTR for historical manuscripts; the Byzantine digital repository ecosystem and research data management; a sustained Byzantine case study; research design methodology; and a mini-project cycle spanning the final two weeks.

(P. Karvelis) Fundamentals of AI and Machine Learning for Byzantine Studies II: The course covers: Natural Language Processing for historical Greek texts including NER and information extraction; Large Language Models — capabilities, prompt literacy, and critical limits; Computer Vision applied to Byzantine material culture; Knowledge Graphs and semantic representation for prosopography and institutional

history; Ontologies, RDF, and Linked Open Data; Historical GIS for the Byzantine world; Network analysis of Byzantine relationships and correspondence; Ethics, bias, and Explainable AI in cultural heritage contexts; multimodal research integrating text, image, and spatial data; and a two-week capstone project cycle culminating in final presentations.

(I. Tsoulos) Geographic Information Systems and Spatial Analysis in Byzantine Studies: The course covers the foundational principles of GIS, coordinate reference systems, map projections, vector and raster data structures, before moving into practical data-creation skills: georeferencing historical maps, digitizing spatial features from primary sources, and constructing attributed datasets from prosopographical and archaeological records. Students then advance to spatial analysis methods including proximity and buffer operations, density mapping, terrain modelling with digital elevation models, and temporal GIS for representing change across centuries. The course concludes with cartographic composition and a critical examination of the epistemological assumptions embedded in spatial representation.

(Ch. Stylios) Interactive Cultural Applications and Creative Computing for Byzantine Heritage: Introduction to digital humanities, cultural heritage interpretation and foundational concepts in computational thinking using Scratch. Design and development of interactive stories, educational games, timelines, quizzes and exploratory micro-applications using Byzantine cultural material. Basic principles of user-centred design, documentation, accessibility, copyright, ethical AI support and project evaluation. Final group project: a functional Scratch prototype, focused on Byzantine history, art, archaeology, manuscripts or material culture.

(Ch. Stylios) Mixed Reality and Digital Representation of Byzantine Culture: The course begins with an introduction to mixed reality and its role in cultural heritage. It then moves into creating and shaping digital models of Byzantine objects and architecture. Students learn how to capture and refine real-world artifacts into digital form. Next, they explore immersive environments and ways to present heritage interactively. Finally, the course addresses publication, interpretation, and ethical issues, ending with student project presentations.

(P. Karvelis) Natural Language Processing for the Byzantine Corpus: An introduction to Natural Language Processing for students of Byzantine Studies, requiring no prior programming experience. The course covers corpus construction, text preprocessing, morphological analysis, named entity recognition, stylometry, and topic modelling, using Byzantine Greek texts as the primary data throughout. Students develop practical skills in Python and industry-standard NLP tools, while engaging critically with the specific linguistic and philological challenges of the Byzantine corpus. The course culminates in an annotated NER pipeline project on a text drawn from the Byzantine tradition.

Article 7

Organization of the Educational Process

The educational process of the PSP is conducted exclusively via distance learning. However, supplementary and optional in-person meetings between students and instructors may take place in Arta, a city with a rich Byzantine history and culture, or in Münster, for the purpose of in situ research monitoring. The courses and educational activities offered are fully supported by distance learning methods, given that the subject area of the Program is primarily theoretical and research-oriented, with an emphasis on the study, analysis, and interpretation of historical, philological, and archaeological sources through the utilization of digital tools. The learning process is mainly based on the study of texts,

the analysis of digital sources, and the preparation of research papers. Concurrently, extensive use is made of digital access to Byzantine manuscripts, collections, archaeological archives, databases, and virtual environments of cultural heritage.

During course instruction, the following digital tools are indicatively utilized:

- **Learning Management System (LMS):** Use of widely distributed LMS platforms to host educational material, announcements, grading, and other academic activities.
- **Collaboration Tools:** Platforms such as Microsoft Teams or Slack for direct interactions and group projects.
- **Digital Research Tools:** Use of specialized platforms for processing Byzantine sources, OCR/HTR (Optical/Handwritten Text Recognition) of manuscripts, databases, and digital archives.
- **Code Version Control System:** Use of GitHub or GitLab for assignments containing code or digital documentation projects.

Educational Strategies

According to Article 4 of Ministerial Decision 18137/Z1/2023 (paragraph d), the pedagogical framework for the design and implementation of distance learning courses is governed by the following principles:

a) each course is structured into weekly or bi-weekly teaching units with clearly defined learning objectives, b) the educational material is made available in advance through the LMS platform, c) student assessment is conducted through written assignments, research projects, and, for the MDD program, a public online presentation, d) each assessment method corresponds to the declared learning outcomes of the course, e) equal access is ensured for all students to educational activities, including students with disabilities or special educational needs.

In this distance-learning PSP, educational visits may be organized to Arta, a city with a remarkable Byzantine heritage, or to Münster, for the purpose of attending lectures, informational presentations, or virtual laboratory demonstrations. However, participation in these visits is not mandatory, provided they do not fall under the compulsory distance courses for which attendance/absence is recorded.

The Program utilizes modern educational strategies and digital tools aimed at effectively achieving its academic and technological goals, such as:

- **Modular Content Structure:** Lectures are organized into distinct teaching units with clear learning objectives. Each unit is accompanied by digital educational material (slides, notes, bibliography, archival and documentation sources) available asynchronously to students.
- **Interactive Online Seminars:** Use of teleconferencing tools for live lectures, source discussions, student presentations, and Q&A sessions.
- **Virtual Laboratories and Digital Platforms:** In courses such as Digital Documentation of Byzantine Sources, Applied Artificial Intelligence in Byzantine Studies, and Immersive Environments of Cultural Heritage, use is made of virtual laboratories, VR/AR technologies, and cloud-based platforms, which allow for the real-time, remote participation of students.
- **Guest Speaker Lectures:** Organization of online lectures and webinars featuring distinguished scientists from the fields of Byzantine Studies, Digital Humanities, Computer Science, and Artificial Intelligence from international academic and research institutions.
- **Group Work and Collaborative Digital Projects:** Development of collaborative research actions among students from different institutions and countries, such as digital editions of Byzantine texts or virtual reconstructions of monuments and cultural sites, thereby strengthening the interdisciplinary and international character of the Program.

Postgraduate courses are conducted entirely online in real time, allowing students to deepen their knowledge in specialized subject areas of Byzantine Studies and digital technologies without disrupting their professional or other activities. This flexibility substantially expands the geographical and social accessibility of the Program, enabling the participation of students from all over the world, particularly from regions with a strong interest in Byzantine heritage, such as Cyprus, the Balkans, and the countries of the Greek diaspora, and enhances the international character of the PSP.

According to Article 4 of Ministerial Decision 18137/Z1/2023 (paragraph c), the educational support for students of the Program is organized as follows: each student has access to an Academic Advisor (see Article 11), who monitors their academic progress and is available for regular remote meetings. In addition, each instructor designates electronic communication hours (virtual office hours) to support students. The Program Secretariat provides administrative support via email and through a dedicated contact form on the Program's website, while technical support is provided by the Digital Governance Unit of the University of Ioannina.

Digital Skills of the Teaching Staff

The Department of History and Archaeology, the Department of Computer Science & Engineering of the University of Ioannina, as well as the collaborating Department of Byzantine and Modern Greek Studies of the University of Münster, recognize the importance of ICT (Information and Communication Technologies) in the educational process and its decisive role in developing international collaborations and interdisciplinary synergies.

The teaching staff of the PSP possesses the necessary digital skills and expertise to support distance teaching, taking into account that:

- The faculty members of the collaborating Departments of History & Archaeology and Computer Science & Engineering have extensive experience teaching at undergraduate and postgraduate levels using e-learning methods, an experience which was significantly reinforced during the 2020-2023 period and has now been integrated as a standard educational practice.
- The Department of Computer Science & Engineering, due to its subject field, possesses specialized expertise in developing and utilizing digital educational tools, including artificial intelligence (AI) technologies, augmented and virtual reality (XR), and interactive learning environments, which form a core component of the Program.
- The faculty members of the University of Münster possess significant experience in distance teaching within the framework of international academic collaborations, as well as in using digital platforms for interdisciplinary research in Byzantine Studies.

The teaching staff of the collaborating institutions systematically cooperate for the development and utilization of shared digital infrastructure, the interconnection of digital scientific content (such as Byzantine archives, databases, and XR applications), and the enhancement of students' digital skills, so that they fully meet the requirements of the PSP.

Category of Educational Activity	Method of Delivery	Indicative Digital Tools
Lectures	Distance learning synchronous (100%)	Moodle / MS Teams / BigBlueButton
Educational and supporting lecture material	Distance learning: asynchronous (100%)	Moodle / Open eClass / MS Teams

Seminars & Student presentations	Distance learning: synchronous (100%)	MS Teams / Zoom / BigBlueButton
Virtual digital technology laboratories (AI, OCR/HTR, VR/AR, digital documentation)	Distance learning synchronous (50%) asynchronous (50%)	Moodle / MS Teams + Cloud Virtual Laboratories / XR Platforms
Guest speaker webinars	Distance learning: synchronous (100%)	MS Teams / Zoom
Student-faculty communication (synchronous)	Distance learning: synchronous (100%)	MS Teams / Moodle / e-mail
Student-faculty communication (asynchronous)	Distance learning: asynchronous (100%)	Moodle / Open eClass / e-mail
Digital access to Byzantine sources, databases, and digital archives	Distance learning: asynchronous (100%)	TLG, CLAVIS, Dumbarton Oaks Online, JSTOR, UoI e-Library
Preparation & supervision Master's Thesis	Distance learning: Synchronous (50%) asynchronous (50%)	MS Teams / e-mail / Moodle / GitHub (for digital projects)
Student management administrative support	Distance learning (100%)	Student Registry Information System of University of Ioannina

Article 8

Infrastructure and Technical Resources

The University of Ioannina implements distance learning through systems provided or approved by the Digital Governance Unit. For asynchronous education, the Open eClass and Moodle systems are used, while synchronous distance learning is conducted via the Microsoft Teams platform or BigBlueButton. According to Article 4 of Ministerial Decision 18137/Z1/2023 (paragraph a), all involved parties have access to the distance learning systems, with differentiated user rights as follows:

- Instructors: They have full management rights over the courses assigned to them (creation and editing of content, uploading of material, grade entry, student group management, attendance monitoring). Collaborating instructors from the University of Münster or other institutions are granted equivalent rights through institutional accounts issued by the Digital Governance Unit.
- Students: They have access exclusively to the courses in which they are enrolled, with the ability to view and download educational material, participate in synchronous and asynchronous activities, submit assignments, and view their grades.
- Supervisors / Evaluators: They have read-only access and may monitor the educational process without the ability to modify content.

- Technical and administrative staff: They have administrative-level access for purposes of technical support, maintenance, and statistical monitoring, without access to the educational content of courses.

Access is carried out exclusively via web browsers, while Microsoft Teams is also available as a free application for desktop and mobile devices at <https://www.microsoft.com/el-gr/microsoft-teams/download-app>.

User authentication is performed through the University of Ioannina's central account management system. Instructors have elevated privileges for course creation and management, while collaborating instructors from the University of Münster or other institutions are provided with corresponding institutional accounts.

The Microsoft Teams platform operates as a cloud-based service (SaaS), requiring no additional infrastructure beyond integration with the authentication system, which is supported by the Digital Governance Unit in cooperation with GUnet and the "Dilos 365" service. The Open eClass, Moodle, and BigBlueButton systems are hosted on the University of Ioannina's infrastructure using virtualization technologies, ensuring scalability and reliability. Internet connectivity is provided through GRnet, ensuring high speeds and uninterrupted access.

According to Article 4 of Ministerial Decision 18137/Z1/2023 (paragraph b), each user category has the following obligations regarding the use of the Program's technological infrastructure:

- Instructors: They are required to update their digital educational material within the prescribed deadlines, maintain the confidentiality of student data, and use the platforms exclusively for educational purposes.
- Students: They are required not to share their access credentials with third parties, to participate authentically in digital activities, and not to reproduce or distribute educational material without permission.
- Technical staff: They are required to maintain confidentiality regarding any data accessed during system maintenance and to immediately inform the Digital Governance Unit of any security incident.
- All users: They are required to use the systems in accordance with academic ethics principles, to refrain from any action that may compromise the security or integrity of the infrastructure, and to comply with this Regulation as well as the instructions of the Digital Governance Unit.

Article 9

Scholarships-Awards

The PSP may award excellence scholarships to postgraduate students based on their academic performance. These scholarships include full or partial exemption from tuition fees during the course of studies. The number of scholarships may reach up to 30% of the admitted students per academic year, while the exact number, type, and terms of award are determined annually by decision of the Program Coordinating Committee (PCC), provided that available resources and the needs of the MSc Program allow it.

Scholarships may be awarded either at the beginning of the program or after the completion of each semester, and in any case before the beginning of the semester in which the thesis is prepared, where

applicable. Applications are submitted to the MSc Secretariat and forwarded to the PCC, which evaluates them, prepares a ranking list in descending order, and decides on the award of scholarships.

Criteria for the award of excellence scholarships include:

- (a) successful completion of all courses in accordance with the approved study program, and
- (b) outstanding academic performance, either based on undergraduate (first-cycle) studies or based on performance in the Program's courses, as applicable.

In case of a tie, selection is made by lottery. In case of resignation or non-acceptance of the scholarship by a beneficiary, it is awarded to the next candidate in the ranking. Scholarship applicants may not receive any other scholarship or financial support for the same period and purpose, unless otherwise duly justified by the Program Coordinating Committee (PCC).

Excellence scholarships awarded under this Regulation are exempt from any tax, deduction, insurance contribution, or solidarity levy, in accordance with applicable legislation. No tax or insurance clearance certificate is required for their payment.

Article 10

Student Exchange Programs

Students and academic staff participating in the Programme may take part in international mobility schemes, including Erasmus+ mobility actions, in accordance with the regulations of the University of Ioannina and the specific requirements of the respective mobility programme. Participation in mobility programmes is subject to the applicable selection procedures, eligibility requirements, and the availability of funding provided by the relevant programme. Information regarding mobility opportunities, application procedures, and participation requirements is made available through the University's International Relations Office and the Programme's communication channels.

The Programme supports student mobility as a means of enhancing international experience, intercultural competence, and academic development. Students may undertake periods of study or traineeships at partner institutions, subject to prior academic approval. Periods of study or traineeships completed within the framework of Erasmus+ mobility are recognized in accordance with the academic regulations of the Programme. Credit transfer is based on the learning agreement and the compatibility of the achieved learning outcomes with the approved curriculum. Up to thirty (30) ECTS credits may be recognized and transferred, in accordance with the applicable regulations.

The conditions, procedures, and recognition arrangements governing student mobility are described in the Study Guide and are implemented in accordance with the principles of transparency, equal treatment, and academic quality.

Article 11

Rights and Obligations of Postgraduate Students

Postgraduate students enjoy all rights and benefits provided to first-cycle students until the expiry of any granted extension of study duration, with the exception of the right to free provision of textbooks. The Institution ensures accessibility to recommended textbooks and educational materials for students with disabilities and/or special educational needs and applies, where necessary, special assessment procedures in accordance with the guidelines of the Accessibility Unit.

By decision of the Coordinating Committee (CC), each student is assigned a member of the Monitoring Committee, who acts as Academic Advisor and monitors the student's academic progress throughout the duration of their studies.

Postgraduate students are required to participate in the educational and academic activities of the Program, including but not limited to seminars, research groups, bibliographic discussions, workshops, conferences, lectures, and other relevant scientific events in their field of study.

In parallel, the Student Support Unit of the University of Ioannina provides counselling and support on academic and career-related matters. Students also have access to all academic resources, libraries, digital repositories, and student support services of both the University of Ioannina and the University of Münster throughout the duration of their studies.

Tuition fees are set at €5,200.00 for citizens of the European Union and citizens of associated countries (Associate Countries, IPA countries), and €8,000.00 for citizens of other countries. Payment is made following the completion of the student selection process, in accordance with the Program's founding act and applicable regulatory provisions. The awarding of the Master's Degree is conditional upon the full settlement of all financial obligations.

In the event of an application for tuition fee exemption, the obligation to pay fees is suspended until the completion of the relevant evaluation process.

Article 12

Tuition Fee Waiver

Postgraduate students of the Program who meet, on a priority basis, criteria of academic excellence at the level of first-cycle studies, as well as financial or social criteria, in accordance with the applicable legislation, may be exempted from the payment of tuition fees. The exemption is granted exclusively for attendance in one (1) Master's Program.

The percentage of beneficiaries is set between ten percent (10%) and thirty percent (30%) of admitted students per academic year, with rounding to the nearest whole number in cases of decimal values.

Article 13

Complaints and Appeals Management Mechanism

Any complaints, objections, or grievances relating to the procedures of the Program shall be submitted electronically to the Secretariat of the Department providing administrative support or through a dedicated form available on the Program's website. All submissions are promptly forwarded to the Director of the MSc Program, who informs the Coordinating Committee (CC) and, where necessary, convenes it, while ensuring the principles of anonymity, discretion, confidentiality, and personal data protection.

The Director may communicate with the parties involved or, where deemed necessary, convene a meeting with the student, the Academic Advisor, and faculty members with relevant expertise, in order to examine and resolve the issue. If no resolution is achieved, the matter is referred to the Coordinating Committee for further consideration and decision-making.

In cases of particular seriousness or inability to resolve the issue, the relevant institutional authorities are informed, such as the Vice-Rector for Academic Affairs and Student Welfare, the Student Ombudsperson,

or other competent bodies in accordance with applicable legislation. If the complaint concerns the Director of the Program, the procedure is undertaken by the most senior faculty member of the Coordinating Committee, who exercises the corresponding responsibilities.

Complaints are examined and, as a general rule, resolved within twenty (20) working days from their submission.

Article 14

Support for Students with Disabilities and Special Educational Needs

The University of Ioannina ensures equal access and participation for students with disabilities and/or special educational needs in all academic activities, in accordance with national and European legislation and the University's Internal Regulations.

The Equal Access Unit is responsible for the planning and implementation of measures related to:

- Accessibility to physical and digital environments;
- Equal access to educational materials and information;
- Provision of adapted educational resources and learning materials;
- Implementation of reasonable accommodations in teaching, learning, and assessment procedures.

This policy forms part of the University's institutional commitment to inclusion, student-centred support, and the continuous enhancement of quality in higher education. The PSP follows and fully aligns with the above institutional framework, ensuring that the same principles of inclusion and equal access are applied consistently throughout its academic and learning activities.

Article 15

Student Dismissal

The Program Coordinating Committee (PCC) may decide on the dismissal of postgraduate students in the following cases:

- (a) in the event of exceeding the maximum allowed limit of absences, where applicable, which is set at three (3) absences per course,
- (b) in the event of exceeding the maximum permitted duration of studies in the Program,
- (c) in the event of failure to fulfil the prescribed academic obligations of the Program and this Regulation,
- (d) in the event of a proven violation of Article 197 of Law 4957/2022 on disciplinary offenses, including in particular acts of damage to the property of the Higher Education Institution (HEI), obstruction of its operation, use or distribution of prohibited substances within the Institution, as well as the commission of a misdemeanor or felony related to student status,
- (e) in the event of violation of the principles of academic integrity, such as plagiarism during examinations or plagiarism in assignments, the Master's Thesis, or other academic activities,
- (f) in the event of a serious violation of the academic rights of other students or disruption of the smooth operation of the Program,
- (g) upon voluntary withdrawal request submitted by the student.

The dismissal decision must be specifically reasoned and is taken after prior invitation of the student to provide explanations, in accordance with the principles of good administration and the right to prior hearing.

Article 16

Plagiarism

Postgraduate students who submit assignments or a Master's Thesis (MSc Thesis) are required to explicitly declare whether and to what extent they have used third-party work, artificial intelligence tools, or other external sources of support, and to provide full and accurate citation of every source, in accordance with the principles of academic integrity.

Copying and plagiarism constitute serious academic misconduct. Plagiarism is defined, in particular, as the appropriation, reproduction, or use of another person's work without proper attribution or reference, regardless of whether the material is published or unpublished. This also includes self-plagiarism, i.e., the reuse of one's own work without appropriate reference.

Failure to properly declare or undisclosed use of Artificial Intelligence tools, when this contradicts the Program's rules or undermines the authenticity of the work, may also constitute a violation of academic integrity.

Any case of plagiarism or violation of intellectual property rights and academic integrity is referred to the Program Coordinating Committee (PCC), which evaluates the case and recommends the imposition of the prescribed measures or disciplinary sanctions, in accordance with the present Regulation and applicable legislation.

Article 17

Master's Degree Diploma Awarding, Issuance, and Graduation Ceremony

A degree awarded at the level of a Joint Master's Degree is conferred, in which the collaborating Departments are indicated, unless otherwise specified in the cooperation protocol. The degree is signed by the Rector of the University of Ioannina, the Program Director, and the Secretary of the Department providing the administrative support of the Program. The MA degree title is issued as a single original document on parchment or an equivalent official document. Both the degree and the Diploma Supplement are issued in the English language. The graduation ceremony of MSc graduates is held in the presence of the Rector or their representative, the Program Director, the Dean of the School or the Head of the Department or their legally appointed deputy, as well as members of the teaching staff of the MSc Program, if they wish to attend.

B. REGULATION OF INTERNSHIP

1. In accordance with Article 69 of Law 4957/2022, as amended by Article 44 of Law 5128/2024, provision is made for internships for both undergraduate and postgraduate students. Within the PSP, participation in an internship is optional and may be undertaken from the third semester onwards. The internship is recorded in the Diploma Supplement and may be recognized as equivalent to one elective course, corresponding to 10 ECTS credits.

2. The internship has a duration of two months and must be carried out in a host organization whose activities are relevant to the academic field of the Programme. Participation is subject to the prior approval of the Coordinating Committee.

Students wishing to undertake an internship are responsible for identifying a suitable host organization and arranging all relevant administrative matters, including remuneration, insurance coverage, and any other requirements established by the host organization, in consultation with the Programme.

3. The internship is academically recognized and contributes to the enhancement of students' professional skills, practical experience, and employability. Participation in internships may also take place within the framework of national or international mobility schemes, including Erasmus+ traineeships, through which students are encouraged to gain professional experience in different institutional and cultural environments.

C. REGULATION FOR SEMINAR ASSIGNMENTS AND MASTER'S THESIS PREPARATION AND ASSESSMENT

1. The assessment method for each Seminar consists of a written assignment. The topic of the assignment is determined following consultation between the instructor and the student and is required to be directly related to the subject area of the respective course. Submission deadlines for student assignments are announced at the beginning of each academic year. In the event of non-successful completion, students are granted the opportunity to resubmit a revised version of their assignment by the end of September. Failure to submit the required assignment within the prescribed deadline shall be deemed a failure in the respective course. In cases of force majeure, illness, or convalescence from serious illness, alternative assessment arrangements may be applied. The instructor may, at their discretion, facilitate the student through appropriate means, including remote written or oral assessment or assessment at a later date.
2. Each course, exercise, and the Master's Thesis is assessed independently on a scale of 0 to 10, using whole numbers or decimal values rounded to one decimal place. The minimum passing grade is 5.0. The Diploma Supplement shall include a description of the grading scale applied within the Programme, as well as a reference to the grading systems of both partner institutions, ensuring transparency and facilitating recognition of qualifications. The grading scale is defined as follows: 8.5–10.0 (Excellent), 6.5–8.4 (Very Good), 5.0–6.4 (Good), and 0–4.9 (Fail). The final degree classification is calculated as a weighted average of all courses and ECTS-credited activities, using ECTS credits as weighting factors, according to the formula: $\text{sum (grade} \times \text{ECTS)} / \text{total ECTS of the Programme}$.
3. The Master's Thesis presupposes research originality and is intended to deepen students' knowledge in a subject area related to the Programme, as well as to ensure the systematic application of the knowledge and skills acquired during their studies. Through its preparation, students become familiar with the principles of scientific research and documentation, develop competencies in independent analysis and synthesis in the fields of Byzantine Studies and Computer Science, cultivate critical thinking and academic writing skills, and acquire experience in oral scientific presentation. Upon completion, students shall be able to present a research topic with clarity, coherence, and full scientific documentation, in accordance with the principles of academic integrity and the intended learning outcomes of the Programme.
4. The Programme Coordinating Committee, in cooperation with the students and the teaching staff, determines the topic of the Master's Thesis and appoints the supervisor. Subsequently, a three-member evaluation committee is established. The Thesis is publicly defended through an online presentation before the committee, which evaluates its scientific quality and integrity. Following approval, its publication on the website of the relevant School is mandatory.
5. The right to supervise a Master's Thesis is granted to members of all categories referred to in paragraph 1 of Article 4 of the Institutional Regulations who, in accordance with applicable legislation, are eligible to undertake teaching duties in the Programme, including instructors of the Programme or members of the collaborating Departments, provided that they hold a doctoral degree. Members of all categories referred to above may participate in the examination committee without being required to undertake teaching duties in the Programme.