COURSE OUTLINE

1. GENERAL INFORMATION

SCHOOL	School of Education		
DEPARTMENT	Department Of Preschool Education		
STUDY LEVEL	Undergraduate		
COURSE CODE	EPA 139	**SEMESTER**	C
COURSE TITLE	Museum Education in the Age of Artificial Intelligence		
INSTRUCTIONAL ACTIVITIES		**TEACHING HOURS PER WEEK**	**NUMBER OF ECTS CREDITS**
1. Lectures 2. Educational trips		3 2 or 3 trips (two hours' duration) per semester	5
COURSE TYPE	Free choice General knowledge Skills development		
PREREQUISITIES	Non		
LANGUAGE OF INSTRUCTION AND ASSESSMENT	Greek		
COURSE IS OFFERD TO ERASMUS STUDENTS	No		
COURSE WEBSITE			

2. LEARNING OUTCOMES

Learning Outcomes
The learning outcomes of the course in terms of knowledge, skills and attitudes are the students who will attend the course: Knowledge ➢ To learn what a museum in the broadest sense is in the era of AI, ➢ To identify what AI is and what its contribution to museums and cultural heritage in general is through a historical review, but also through an exploration of the contemporary challenges and risks that lie ahead. ➢ Understand theories of learning in the museum or with the museum in distance and distance education. ➢ Distinguish the technologies used in museums to enhance the museum experience. ➢ To get in touch with works of art created by AI. Skills ➢To choose a museum education programme or another educational activity offered by museums in the context of their digital transformation.

➢To experiment with museum education methods and techniques in the classroom, making use of the digital tools and technological possibilities offered by the museums themselves, but also of the AI tools in general in relation to cultural heritage.

➢ To organise a visit to a museum using the tools of AI.

➢To develop skills and competences to use and interact with AI.

Attitudes

➢ To reinforce the belief that museum education with the help of AI applications is a science that offers many tools to the teacher and, in general, to the potential museum visitor.

➢ To develop a positive attitude towards AI.

➢ To critique, if necessary, the proposed applications, tools and use of AI.

General Abilities

The wider aim is to work together and foster a team atmosphere. At the same time, both in setting the objectives and in designing the course, we take into account the general competences that the graduate should acquire, as listed in the Diploma Supplement, which are: searching for analyzing and synthesizing data and information using appropriate technologies and the necessary literature; applying knowledge in practice; making decisions; working independently and in teams; designing projects; promoting free, creative and deductive thinking; generating new research ideas; exercising critical and reflective thinking; and developing new skills and competences.

3. COURSE CONTENT

The EPA code course Museum Education in the Age of Artificial Intelligence explores the digital transformation of museums and cultural heritage through examples from Greece and abroad. Artificial Intelligence is the most advanced and constantly evolving technology that allows machines to perform tasks that normally require human intelligence, such as understanding language, recognizing images, or making decisions. In this course we will explore how this technology is being applied to museum education (e.g. providing adaptive and personalized learning paths for visitors based on their interests and preferences, creating dynamic and engaging content for exhibits, improving the accessibility and inclusivity of museum education for people with different abilities, languages, or backgrounds, and analyzing and evaluating the impact and effectiveness of museum education programmes). The use of AI for museum education can bring many benefits to both museums and visitors, such as improving the quality and relevance of museum education through more personalized and meaningful learning experiences and increasing visitor engagement and retention through interactive and immersive learning opportunities. AI can also extend the reach and impact of museum education, making it more accessible and inclusive to diverse and remote audiences. In addition, AI can support innovation and sustainability in museum education by enabling more efficient and cost-effective use of resources and data. However, challenges and risks (responsible use of AI; ensuring quality of content; balancing the role of AI and human educators) are presented in the course to cultivate a critical attitude towards this ever-evolving technology. It is also important to encourage critical thinking, creativity and collaboration between visitors and museum staff. Providing training, guidance and support can help ensure success in this endeavor.

The course will cover the following units: 1. Discussion of definitions such as what is AI, what are the other new cutting-edge technologies (such as the Internet of Things, robotics, big data

analytics) and how they are transforming museums, cultural heritage and aspects of museum education. What is a digital museum or digital heritage and what is meant by the digital transformation of museums. 2. The integration of Artificial Intelligence and new cutting-edge technologies in culture and museums through examples of applications in Greece and abroad at the level of study, research and exhibition, conservation, education, communication, narrative and human creativity. 3. 4. Artificial Intelligence itself as an artist and educator in the field of museums 4. Deepening the educational activities offered by Greek museums through the integration of advanced technologies in person and at a distance. 4. Discussing the challenges and risks of AI in museums. 5. Legal framework. 5. Discussion on how to evaluate and select the educational activities offered by museums using advanced technologies for pre-school children.

4. METHODS OF INSTRUCTION, LEARNING AND ASSESSMENT

<table>
<tr><td>MODE OF INSTRUCTION</td><td>Face to face teaching.
Using ppt and experiential educational techniques in the classroom.
Educational visits to museums
Remote communication to clarify students' questions.</td></tr>
<tr><td>USE OF INFORMATION AND COMMUNICATION TECHNOLOGY</td><td>E-class for posting educational material for the courses, announcements related to the course and communication with the students.
Lectures using power point presentations, observing videos with relevant educational content, utilizing the internet (virtual museums, virtual tours, online museum games etc.)</td></tr>
<tr><td>ORGANISATION OF INSTRUCTION</td><td>
<table>
<tr><th>Activity</th><th>Semester Workload</th></tr>
<tr><td>Lectures</td><td>39</td></tr>
<tr><td>Educational trips</td><td>4-6</td></tr>
<tr><td>Study</td><td>20</td></tr>
<tr><td>Optional assignments</td><td>27</td></tr>
<tr><td>Total</td><td>100</td></tr>
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<tr><td>STUDENTS' ASSESSMENT</td><td>Final written exam in the form of multiple-choice and critical thinking questions (100% or 80%)
Optional individual or group assignments during the course, additional to the final assessment (20%)</td></tr>
<tr><td>RECOMMENDED READING</td><td></td></tr>
<tr><td colspan="2">Barekyan Kristina, Lisa Peter (2023). Digital Learning and Education in Museums. Innovative Approaches and Insights. Network of European Museum Organizations.
Bernhardt C. Johannes, Sonjia Theil (2024)(eds) AI in Museums. Reflections, Perspectives and Applications. Bielefeld, Verlag.</td></tr>
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Pasikowska-Schnass Magdalena, Young-Shin Lim (2023). Artificial intelligence in the context of culture heritage and museums. Complex challenges and new opportunities. Ανακτήθηκε από: https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/747120/EPRS_BRI(2023)747120_EN.pdf

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Τρούλη Σοφία (2022). Μουσειακή μάθηση και Νέες Τεχνολογίες στην υπηρεσία της σχολικής τάξης. Το παράδειγμα των ελληνικών μουσείων στην εξ αποστάσεως εκπαίδευση. Στο Αναστασιάδης Παν.. Τ*ΠΕ, Σχολική εξ Αποστάσεως Εκπαίδευση και Συνεργατική Δημιουργικότητα στο Σχολείο του 21ου Αιώνα,* 301-332. ΕΔΙΒΕΑ. Ανακτήθηκε Από: https://service.eudoxus.gr/search/file/17/full-108802417.pdf

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