COURSE OUTLINE

(1) GENERAL

SCHOOL	Human Sciences
ACADEMIC UNIT	Science Communication
LEVEL OF STUDIES	M.Sc.

COURSE CODE	**EEP22**	**SEMESTER**	2nd

COURSE TITLE	**Museums, Science and Technology**

INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits*	WEEKLY TEACHING HOURS	CREDITS
Workload for students: 21-23 hours x 13 weeks	280-300	10 ECTS
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	COMPULSORY
PREREQUISITE COURSES:	NO PREREQUISITE COURSES
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	GREEK
IS THE COURSE OFFERED TO ERASMUS STUDENTS	NO
COURSE WEBSITE (URL)	https://www.eap.gr/en/science-communication/topics/#e22 Each module has its own space in the Learning Management System of EAP (https://courses.eap.gr/login/index.php), with controlled access (use of code) for students and teaching staff.

(2) LEARNING OUTCOMES

Learning outcomes *The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.* *Consult Appendix A* • *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area* • *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B* • *Guidelines for writing Learning Outcomes*
• To understand the main functions and contemporary characteristics of museums • To describe target audiences and their characteristics • To identify the basic steps towards the design of exhibitions on Science and Technology • To explore the varieties of themes from Science and Technology -including scientific controversies and issues that provoke controversies- and their potential to be exhibited in the museum • To understand the dynamic character of interactive exhibits as learning elements in the museum and their potential to creatively engage visitors with Science and Technology • To design and implement educational activities and programmes for science and technology museums

- Adaptation to new situations
- Decision making
- Autonomous work
- Teamwork
- Work in an international environment
- Work in an interdisciplinary environment
- Generation of new research ideas
- Project planning and management
- Respect for diversity and multiculturalism
- Respect for the natural environment
- Demonstrate social, professional and ethical responsibility and sensitivity to gender issues
- Exercise criticism and self-criticism
- Promotion of free, creative and inductive thinking

(3) SYLLABUS

- Museology of Sciences: history, theory and current practice in science and technology museums
- Exhibition design for technoscientific issues
- Exhibition evaluation
- Educational programmes for a variety of audiences
- Audience research with an emphasis on how they perceive the role of museums in communicate Science and Technology

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Distance learning, complemented by: - 3 Group Feedback Meetings - Personal communication and feedback, when asked for by students.
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Remote meetings tools (webex) and presentation software (e.g., PowerPoint). Additionally, students use office automation tools, web browsers, and e-readers for digital books.

TEACHING METHODS *The manner and methods of teaching are described in detail.* *Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.* *The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS*	Activity	Semester workload
	Personal Study (12-13 hours x 13 educational weeks)	149-169
	2 activities (2 x 30 hours)	60
	3 Group Feedback Meetings (3 x 4 hours)	12
	1 semester essay	54
	Written exams	5
	Course total	**280-300**

STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	Elaboration of written assignments during the academic semester with a weighting factor in the formation of the final grade by 40%. Final written exams, the grade of which participates in forming the final grade by 60%. For further information, check the H.O.U. Study Guide.

(5) ATTACHED BIBLIOGRAPHY

References in Greek

- Hackett, A., Holmes, R. & MacRae, C. (επιμ.). (2023). *Δουλεύοντας με μικρά παιδιά στα μουσεία. Συνυφαίνοντας θεωρία και πράξη* (επιστ. επιμ. Α. Φιλιππουπολίτη). Αθήνα: Ινστιτούτο Βιβλίου-Καρδαμίτσα.
- Κολιόπουλος, Δ. (2017). *Η διδακτική προσέγγιση του Μουσείου Φυσικών Επιστημών*. Αθήνα: Μεταίχμιο.
- Κολιόπουλος Δ. κ.ά. (2022). *Ειδικά θέματα διδακτικής και Μουσειολογίας Φυσικών Επιστημών*. Αθήνα: Κάλλιπος, Ανοικτές Ακαδημαϊκές Εκδόσεις. https://dx.doi.org/10.57713/kallipos-55
- Macdonald, Sh. (επιμ.) (2021[3]). *Μουσείο και Μουσειακές Σπουδές: ένας πλήρης οδηγός*. Αθήνα: Πολιτιστικό Ίδρυμα Ομίλου Πειραιώς.
- Νικονάνου, Ν., Μπούνια, Α., Φιλιππουπολίτη, Α., Χουρμουζιάδη, Α., Γιαννούτσου, Ν. (2015). *Μουσειακή μάθηση και εμπειρία στον 21ο αιώνα*. Αθήνα: Κάλλιπος, Ανοικτές Ακαδημαϊκές Εκδόσεις. https://dx.doi.org/10.57713/kallipos-918
- Φιλιππουπολίτη, Α. (2023) (επιμ). Εκπαίδευση και μάθηση σε μουσειακά περιβάλλοντα. Ειδικός τόμος του περιοδικού *Έρευνα στην Εκπαίδευση*. 12 (2). https://ejournals.epublishing.ekt.gr/index.php/hjre/article/view/35733

- Χουρμουζιάδη, Α. (2022). *Εισαγωγή στον εκθεσιακό σχεδιασμό*. Κάλλιπος, Ανοικτές Ακαδημαϊκές Εκδόσεις. https://dx.doi.org/10.57713/kallipos-67

References in English

- Achiam, M. (2024). Post-Normal Science Communication? The Role of Science Centres and Museums in an Uncertain Future. In D. Jontes, A. Skapin, & M. Achiam (Eds.), *The Ecosystem of Science Communication in the Post-Truth Era: Perspectives, Contexts, Dynamics* (pp. 29-49). Ljubljana University Press, Faculty of Arts. https://doi.org/10.51746/9789612972417
- Alberti, S. (2017). Why Collect Science? *Journal of Conservation and Museum Studies*, 15 (1). https://jcms-journal.com/articles/10.5334/jcms.150
- Eikeland, I. & Frøyland, M. (2020). Pedagogical considerations when educators and researchers design a controversy-based educational programme in a science centre. *Nordic Studies in Science Education*, 16 (1), pp. 84-100. https://journals.uio.no/nordina/article/view/7001
- Navas Iannini, A.M. (2023). Socioscientific issues in science exhibitions: examining contributions of the informal science education sector. *Journal of Science Communication,* 22(02). https://doi.org/10.22323/2.22020202
- Navas Iannini, A.M. & Pedretti, E. (2022). Museum staff perspectives about a sustainability exhibition: what do they tell us about scientific literacy?. *International Journal of Science Education,* Part B, 12:1, pp. 1-21. https://www.tandfonline.com/doi/full/10.1080/21548455.2021.2015638
- Pedretti, E. & Navas Iannini, A.M. (2020). Towards Fourth-Generation Science Museums: Changing Goals, Changing Roles. *Canadian Journal of Science, Mathematics and Technology Education*, 20 (4), pp. 700-714. https://link.springer.com/article/10.1007/s42330-020-00128-0

Academic journals

1. Journal of Science Communication
2. Public Understanding of Science
3. Science Museum Journal
4. Social Studies of Science
5. Museum Management & Curatorship
6. Curator. The Museum Journal
7. Museums & Society
8. Museum History
9. International Journal of Science Education
10. Science & Education