COURSE DESCRIPTION

1. GENERAL

SCHOOL	MUSIC AND AUDIOVISUAL ARTS		
DEPARTMENT	AUDIO AND VISUAL ARTS		
LEVEL	Undergraduate		
COURSE CODE	THE848	**SEMESTER**	8th
COURSE TITLE	Hybrid Arts Practices		
INDEPENDENT TEACHING ACTIVITIES		**WEEKLY TEACHING HOURS**	**ECTS**
Lecture, Tutorial		0	5
COURSE CATEGORY			
COURSE TYPE	Elective		
PREREQUISITES	-		
LANGUAGE OF TEACHING and EXAMINATIONS	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	YES (In English)		
URL	https://avarts.ionio.gr/en/studies/undergraduate/courses-descriptions/the848/		
ECLASS			

2. TEACHING RESULTS

Teaching Results

Students will have an understanding of the relationships between art, scientific research and technological innovation and how each sector informs and promotes the other.

Students should have acquired knowledge about the strategies of artists in the context of techno-scientific research and implementation of works of art characterized by the strong element of hybridization. Finally objective is to strengthen the ability of students to research, design and implement their personal works of art that are characterized by a strong element of hybridization.

General Skills

- Freedom of thought

3. CONTENT

The synergy of art with science is a practice that is gaining more and more ground due to technological and social developments. The primary goal of the course is to enhance and broaden the understanding of the hybridization of this synergy, focusing on different methods but also re-examining the traditional relationship between artistic practice and scientific research.

The subject of study is the texts of international literature and the analysis of examples of works of art that are the result of the collaboration of art with various scientific fields. Ethical and methodological issues of artworks as a result of development in the fields of biotechnology, medicine, robotics, nanotechnology, ecology, particle physics and others are examined. Finally, the object of analysis is the use of scientific tools and laboratory facilities in the creation of hybrid artworks.

Week # 1: Introduction, overview of the course's structure and definitions (science, art, techno-romance - technophobia, hybridization, originality among others).

2. Week # 2: The Scientific Method: Knowledge - Truth - Rationality. Inductive method. Deduction. Falsification - Verification.

Week # 3: Art - Science: A Historical Review of their Relationship. Methodological differences and similarities. Artists and works influenced by science and vice versa.

Week # 4: Natural materials and natural phenomena. Non-linear dynamic systems. Meteorology, solar energy, geology and mechanical motion.

Week # 5: Space: Space Exploration. Gravity. Macrocosm.

Week # 6: Biology. Microbiology. Medicine. Genetic. Industrial. Ecology, Microorganisms, plants, animals, insects.

Week # 7: The human body and body imaging. Extreme performance. Prosthetics. Body manipulation and modification. Destruction. Bodily fluids.

Week # 8: Kinetics. Electronics. Robotics. Artificial Intelligence.

Week # 9: Alternative interfaces: (gesture, touch, facial expression, speech). Algorithms and software art. Information Systems: databases, monitoring, RFID / barcode, synthetic cinema, information visualization.

Week # 10: Particle Physics, Geology, Physics, Chemistry, Geology, Physics, Chemistry, Nanotechnology, Materials Science. Electromagnetic. Materials Science.

Week # 11: Telecommunications: telephone, radio, telepresence, internet, mobile.

Week # 12: Political action and art. Technopolitical and regular means.

Week # 13: Ethical issues arising from the synergy between art - science and technology. Exhibitions and festivals; educational programs, art and research collaborations, reservoirs of thought and internet resources.

Week # 14: Presentation of work progress.

* Use of Information and Communication Technologies

The OpenEclass platform is being used for the exchange of files related to the course as well as the communication between the instructors and the participating students.

4. TEACHING AND LEARNING METHODS - EVALUATION

TEACHING METHOD	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	The OpenEclass platform is being used for the exchange of files related to the course as well as the communication between the instructors and the participating students.
TEACHING STRUCTURE	Activity — Semester Workload Lectures — 26 Lab Lectures — 0 Tutorial — 13 Hands-on Lab — 0 Practice and Preparation — 30 Independent Study — 56 **Course Total** (ECTS: 5) — **125**
EVALUATION OF STUDENTS	The evaluation will be carried out through the delivery of individual or group assignment.

5. BIBLIOGRAPHY

Ascott, Roy, ed. Engineering Nature: Art & Consciousness in the Post-Biological Era. Bristol ; Portland, OR: Intellect, 2006.

Coyne, Richard D, and MIT Press. Designing Information Technology in the Postmodern Age: From Method to Metaphor. Cambridge; London: The MIT Press, 2005.

Davis, James W. *Hybrid Culture: Mix-Art*. Dubuque, Iowa: Kendall/Hunt Pub. Co, 2007.

Dutton, Denis, and Michael Krausz. *The Concept Of Creativity Science Art*, 1981. https://doi.org/10.1007/978-94-009-8230-7.

Against Method. 3rd ed. London ; New York: Verso, 1993.

Feyerabend, Paul. Ιστορία της φιλοσοφίας της επιστήμης (λήμμα στο λεξικό Oxford Companion to Philosophy)

Gilbert, Tamsyn. “Looking at Digital Art: Towards a Visual Methodology for Digital Sociology.” *The American Sociologist* 49, no. 4 (December 2018): 569–79. https://doi.org/10.1007/s12108-018-9384-2.

Hauser, A. *The Sociology of Art (Routledge Revivals)*. Routledge Revivals. Taylor & Francis, 2012. https://books.google.gr/books?id=2dm9eUVGRFIC.

Kim, Jihoon. *Between Film, Video, and the Digital: Hybrid Moving Images in the Post-Media Age*. International Texts in Critical Media Aesthetics, v. 10. New York: Bloomsbury Academic, 2016.

Kuhn, Thomas S., and Ian Hacking. *The Structure of Scientific Revolutions*. Fourth edition. Chicago ; London: The University of Chicago Press, 2012.

Popper, Frank. *From Technological to Virtual Art*. Leonardo. Cambridge, Mass: MIT Press, 2007.

Quaranta, D. *Beyond New Media Art*. Lulu.com, 2014. https://books.google.gr/books?id=8m5LCAAAQBAJ.

Shirley, John William, F. David Hoeniger, Folger Institute of Renaissance and Eighteenth-Century Studies, and National Museum of American History (U.S.), eds. *Science and the Arts in the Renaissance*. Washington, D.C. : London: Folger Shakespeare Library ; Associated University Presses, 1985.

Skorucak, Anton. Science and the Arts Foreword. https://www.physlink.com/education/essay_love.cfm

Thomas, Paul. Nanoart: The Immateriality of Art. Bristol: Intellect, 2013.

Ursyn, Anna, ed. Biologically-Inspired Computing for the Arts: Scientific Data through Graphics. Hershey, PA: Information Science Reference, 2012.

Wilson, Stephen. *Information Arts: Intersections of Art, Science and Technology*. The MIT Press Cambridge, Massachusetts London, England, 2002.