COURSE DESCRIPTION

1. GENERAL

SCHOOL	MUSIC AND AUDIOVISUAL ARTS		
DEPARTMENT	AUDIO AND VISUAL ARTS		
LEVEL	Undergraduate		
COURSE CODE	AVA540	**SEMESTER**	5th
COURSE TITLE	Interactive Sound and Image Systems		
INDEPENDENT TEACHING ACTIVITIES		**WEEKLY TEACHING HOURS**	**ECTS**
Lecture, Hands-on Lab		4	7
COURSE CATEGORY	Specific Background		
COURSE TYPE	Elective		
PREREQUISITES	TEC311, (AVA445)		
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/ava540/		
ECLASS			

2. TEACHING RESULTS

Teaching Results

Aim of this course is to explore technologies and whether they can be used to read, record, evaluate and reconstitute people's relationships with material culture in urban and natural environment.

On the occasion of the course "Interactive Sound and Image Systems", the students explore, organize and classify urban civilization data in the modern robotic era. The aim is to create an anthropocentric framework that provides solutions using data that are related to new technologies, urban environment and nature. Lectures, proposes everyday objects such as games, culture, arts, digital applications for city residents and visitors as contemporary prints of the digital age.

The course includes 2 main workshops: a) Object and model design using open fabrication technologies; and b) Workshop of open technologies for natural data management using the Arduino electronic platform.

General Skills

- Seek, analyze and synthesize data
- Autonomous work
- Team work
- Project design and management
- Freedom of thought

3. CONTENT

In our days Physical Computing is a widely-evolving method in design, representation, and arts. It invade through their simplicity in private and public life of humans. The course introduces interaction and parameterization as a key object in Interaction Design, systems and services. Interactive artefacts serve everyday life by rewriting the symbiotic relationships of citizens with the private space (local scale), the urban an natural environment (urban scale) as well as with the global digital intangible city (global scale).

Students will be asked to implement objects, games, digital applications focusing on the relationship between citizens, cities and the natural environment. Open design and fabrication technologies that are available in our days are the mediums for the implementation of the students' projects.

1st week: Introduction to Design and Information, Viewing Student Projects

2nd week: Presentation of examples on the field of Interaction Design, the daily life in the digital age. Exercise A1-Decode Operating Rules (in class)

3rd week: Presentation of examples on the field of exploring the relationship of the citizen with the city and the natural environment. Exercise A2-Decode Operating Rules (in class)

4th week: Presenting examples on the field of Services redefining the role of man in the global city. Exercise A3-Decode Operating Rules (in class)

5th-6th-7th Week: 3-day Arduino Workshop, Digital Input / Output, Serial and Wireless Communication (bluetooth), Audio, PWM, Analog sensors

8th-9th week: Model Workshop, Digital Vector Design, Digital Fabrication

10th-11th week: 2 day Arduino Workshop, Motor, Special Devices, Monitors, Gyroscope, Communication with Processing

12th week: Presentation

13th week: Project Review

4. TEACHING AND LEARNING METHODS - EVALUATION

TEACHING METHOD	Lectures
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	
TEACHING STRUCTURE	Activity — Semester Workload Lectures — 26 Lab Practice — 26 Literature Study and Analysis — 80 Practice and Preparation — 43 **Course Total** (ECTS: 7) — **175**
EVALUATION OF STUDENTS	The project is being presented Text up to 2500 words with the development and description of the project Video of the project 1,5-2,5 minutes

5. BIBLIOGRAPHY

Huizinga Johan (1989) Homo Ludens, Gnosi Publications, Athens
Frisch Max (2014) Homo Faber, Patakis Publications, Athens
Harari Yuval-Noah (2017) Homo Deus, Aleksandria Publications, Athens