Technology Introductions

Date Wednesdays, 16.30-18.30 WS18
Room 2044

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Purpose of the Course

This course will introduce students to a broad array of hardware and software used in the production of multimedia experiences. Participants will learn how to use technologies ranging from sound recording, virtual reality headsets, 360 and stereoscopic video capture, MIDI devices and microcontrollers in order to develop a broad literacy in the field of cutting-edge new technologies. The course will focus on hands-on production and rapid project-making.

This course is considered a practical introduction to the technologies used in the CTech Masters.

Specific Objectives

- Learn how to use a broad array of new technologies.
- Understand the formal specificities of each media platform.
- Learn how to combine specific technologies in order to fulfil an artistic vision.
- Develop an ability to quickly learn how to use any new technology.

Resources

The readings will include practical description of the hardware as well as artistic overviews of the fields in which these tools are used.

Schedule of Topics

	Theme	Lecture	Practice
Week 1 24.10.18	Audio	Introduction - DAWs	Use Reaper, Ableton or Audition and mix sound samples that you've found online to create a soundscape.
Week 2 07.11.18	Audio	Introduction - Recording	Build upon your soundscape by recording at least one human voice and at least one sound effect.
Week 3 14.11.18	Audio / 3D Cameras	Audio Project presentation 3D Cameras - Workflow	Capture footage using a 360 camera or 3D camera
Week 4 21.11.18	3D Cameras / VR	360 Project presentation VR - Software	N/A
Week 5 28.11.18	VR	VR Homework Review VR - Mixed Reality / MIDI	N/A
Week 6 12.12.18	VR / MIDI	Christmas Party	Use MIDI hardware to trigger samples in your DAW, in Unity, or Max/MSP

Week 7 14.12.18	MIDI + VR	Work session	Develop a “performative” audio visual piece using MIDI, audio and video.
Week 8 19.12.18	MIDI + VR	Midi + Audio + VR project work session	N/A
Week 9 09.01.19	Microcontrollers	Arduino	Create a simple switch using sensors or unusual connectors.
Week 10 16.01.19	Microcontrollers	Raspberry Pi	Set-up your raspberry pi as the main driver for an audio and/or visual installation.
Week 11 23.01.19	Final	Microcontroller project presentation / Other devices	Choose a device from the remaining list. Develop a project around it and present it to the class.
Week 12 20.01.19	Final	Other devices presentation	Final presentations.

Method of Instruction

The course is divided in different sections, according to a specific set of technologies. During each of these sections, students will first be presented with a quick overview of the current state of the technology, both from a historical and an artistic perspective. Students will then be introduced to the technologies themselves through practical, in-class exercises. Finally, the section will wrap-up by developing and presenting a group project using that particular media over the course of a week.

Method of Evaluation

The requirements to pass the course are

- Complete each exercise in-class.
- Be involved in the technical aspect of each project.
- Be involved in the conceptual aspect of each project.

There will be no grade for this class. If more than 2 sessions are missed, the course is failed.