Art 316: Interactive and Multimedia Art
Meeting times: Mondays and Wednesdays, 12:30 – 3:00, KSE 516
Instructor: Jessica Fenlon
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Office / Studio location: KSE 535

Catalog Description

In this intensive production class, students will produce art objects and installations that, via data translation and responsive triggering, ask viewers to interact with cameras for body- and motion-tracking, and/or Arduino sensors for motion or other tracking, and/or microphones for amplitude tracking, and/or MIDI and USB devices to control digital elements.

spring 2018 student work, part 1

Course Description & Goals

This class will focus on interactive technologies and aesthetics in contemporary art. Students will learn basic software development and real-time computational methods. They will simultaneously make projects often experienced as projected video or onscreen computer-based art while learning basic software development: simple MIDI
sounds or drawings, digital audio triggered with human interface devices (USB, MIDI, Bluetooth), work with recorded and live video files for live mixing and computer vision (body- and motion-tracking, for example).

Students retaking 316 will learn how to implement work on Raspberry PI or other microcomputing platforms.

Assignments will include small projects with varying technical goalposts, as well as a mid-term and final project that will be focused on conceptual-material aesthetic themes.

Class time will include demonstrations, in-class work/technical activities, discussion of the built world and the artist's role therein, work days, and critique. Although students will produce parts of their projects during class (at least 30 minutes each day), most project manufacture will be done outside of class time.

Occasional readings and/or screenings will be provided in class, on D2L / e-reserve, and via web links. Students will be notified when this occurs and are expected to follow up on their own time.
Credit Hours: 3 credits
F2F Meetings: ~5 hours per week (~70 hours total)
-Independent work outside of class: ~6+ hours per week (90+ hours total)

fun with audioreactive jitter matrix slicing & dicing

Student Learning Objectives/Outcomes:
~ foundation of software development and the workflows that support successful outcomes
~ computational logic for executing generative ideas using math, randomization, probability, and data transformation
~ to successfully route signal for real-time audio, video, and computer vision in maxMSP+Jitter projects
~ audiovisual triggering and variable real-time responses
~ project management and research skills, by keeping a process book
~ how to plan and prepare for the mechanics of installation
human interface strategies: from choosing the right controllers (MIDI, guitar hero, Wii) to programming buttons, dials, sliders or other onscreen interface elements

aesthetic criteria for interactive art objects and installations

critical perspectives for discussing interactive, performative, generative art, and the artist’s role in the built world

the history of the development of computing and its cultural impact

**Required Materials/Supplies**

- laptop running Max/MSP+Jitter 8 (educational discount is $10/month, $59/year, or $250 full license at [https://auth.cycling74.com/purchase#educational](https://auth.cycling74.com/purchase#educational)) and web access to post and review patches. This is **required**. Having no computer, or lacking the software, will not be an acceptable excuse for work not done.

- sketchbook(s) or notebook(s)

- construction supplies as needed

- other materials as needed for specific projects. These may include ...specialty lights or microphones, USB or MIDI devices, cameras or kinects, other pay-for-play software. **Some of this may be made available on loan through the department.**

**Recommended Materials/Supplies**

- Microsoft Kinect 1414 or USB plug-in camera with manual setting options. Note that built-in iSights (and built-in cameras generally) are not suitable for most interactive purposes (this will be explained in class)

- headphones

**The Process Book**

Your process book will be turned in for assessment at your midterm and final projects. Document and retain every aspect of your thinking, decision-making, learning, and creative process in MaxMSP. I expect to see notation on a class-to-class basis, as well as the questions arising from the process of learning.

MaxMSP is an enormous work environment to learn to work inside of. There are zones
of use that we are not going to engage at all, and we will still have too much to learn! When beginning, you cannot expect to learn and retain it all on the fly. Your process book allows you to write down how to use elements of the software that you do not yet understand, remember details for you, and help you plan your builds as projects become more complex.

Think of the process book as a foundation for the “engineering artist”. This is the notebook where you will research visually and in written form. Your process book will be 20% of your midterm and final project’s grade.